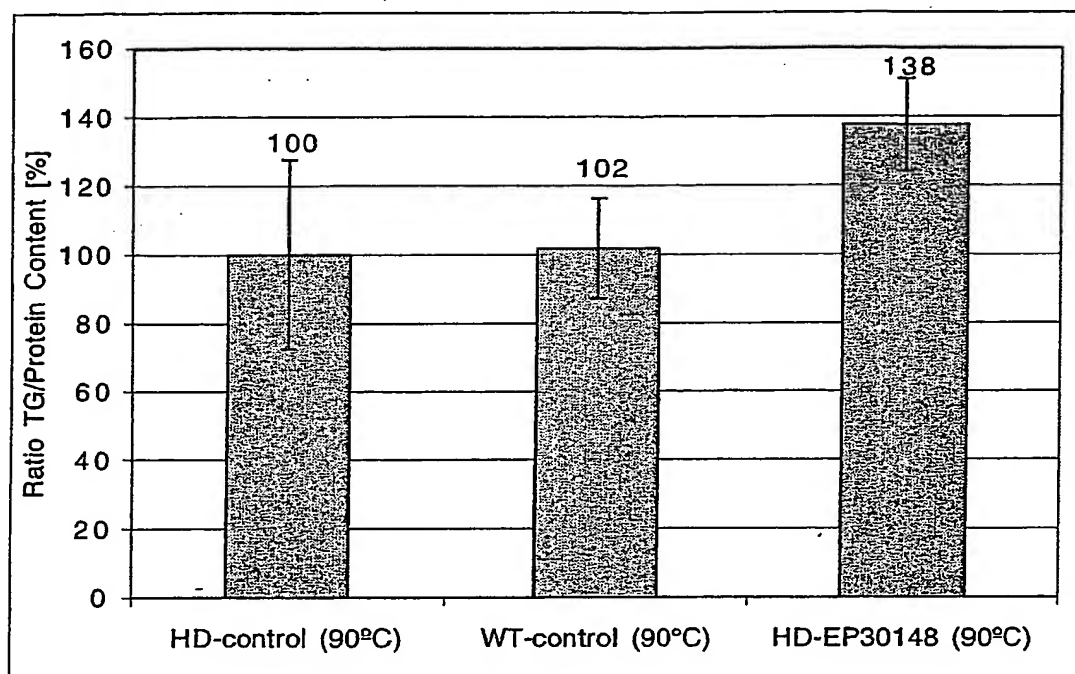


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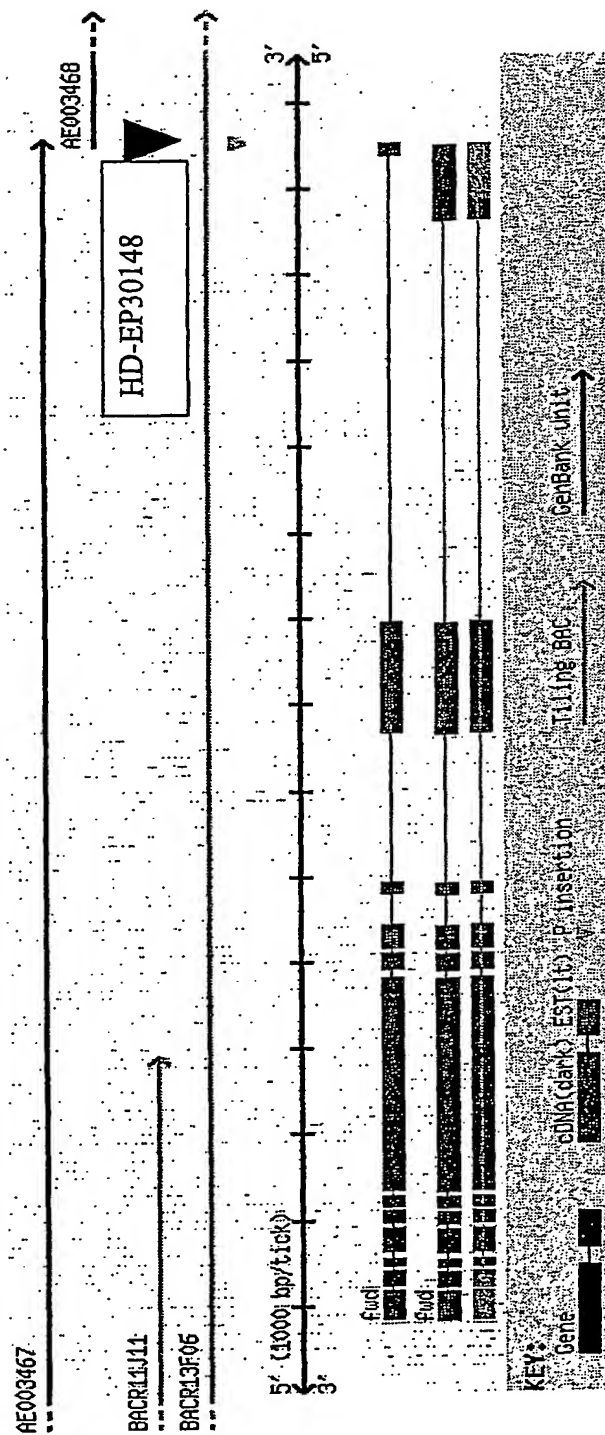
Figure 1. Energy storage triglyceride content of a *Drosophila fvd* (Gadfly Accession Number CG7004) mutant



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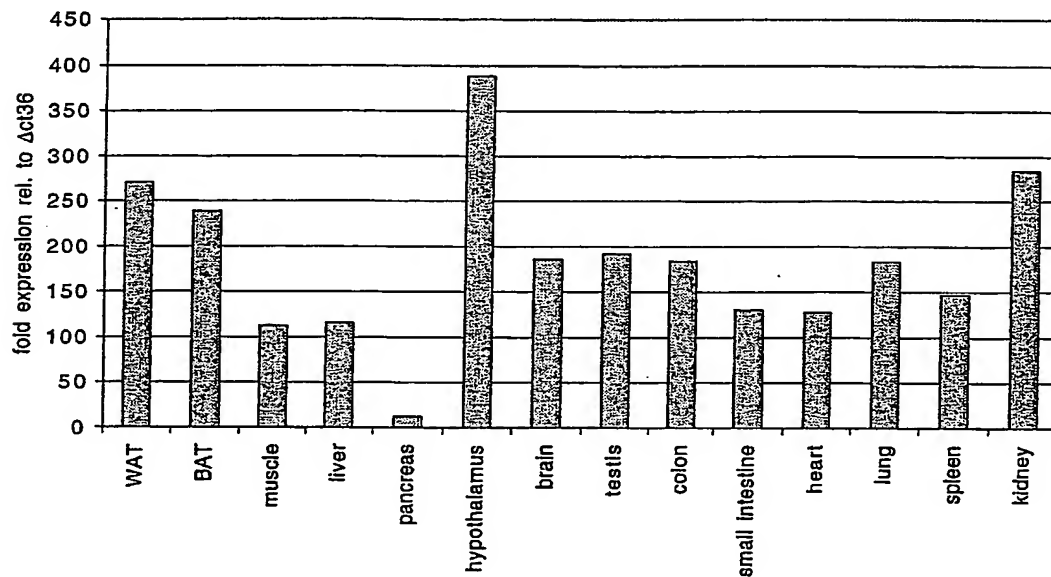
Figure 2. Molecular organization of the *fwd* gene (GadFly Accession Number CG7004)



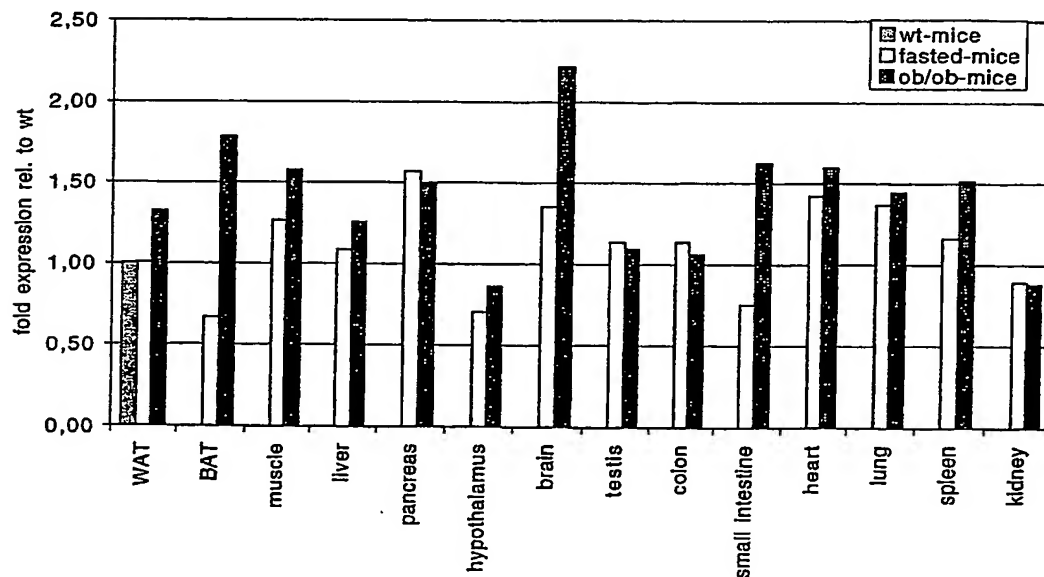
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**Figure 3. Expression of the *fwf* (GadFly Accession Number CG7004) Homolog in Mammalian Tissues**

**Figure 3A. Real-time PCR analysis of the catalytic beta polypeptide of phosphatidylinositol 4-kinase (*Pik4cb*) in wild type mouse tissues**

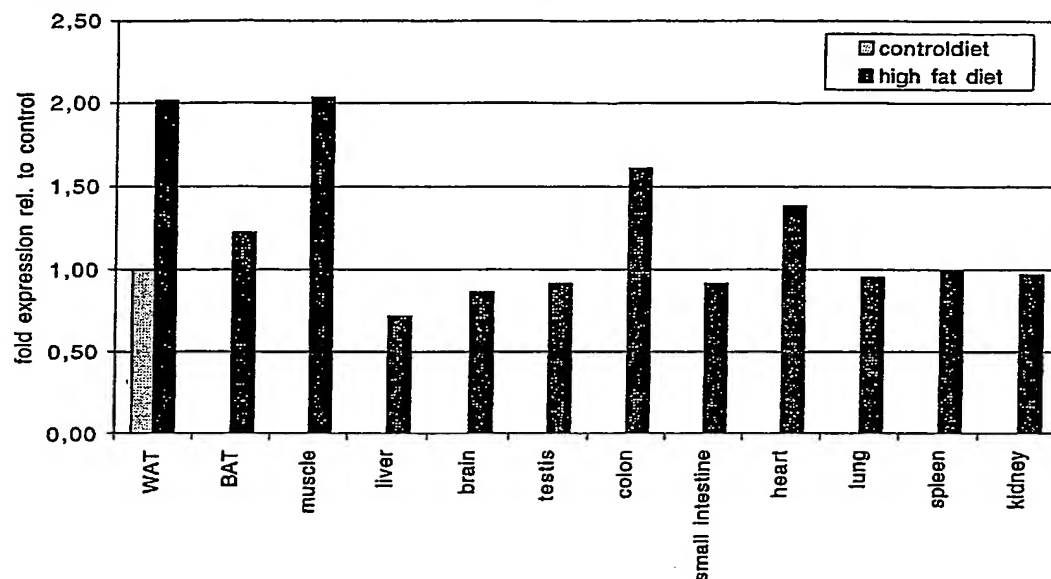


**Figure 3B. Real-time PCR analysis of *Pik4cb* expression in different mouse models**

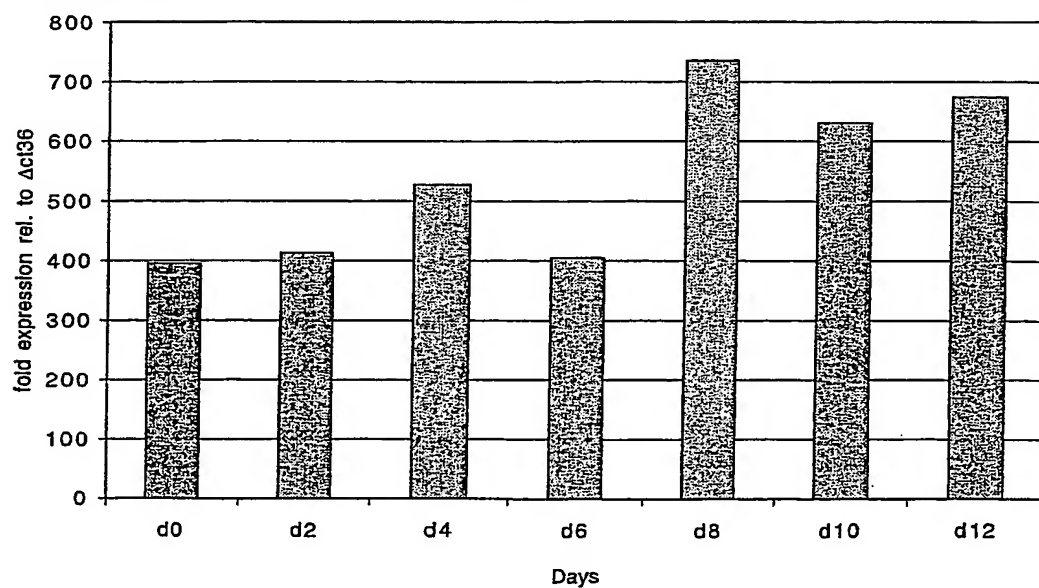


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**Figure 3C. Real-time PCR analysis of *Pik4cb* expression in mice fed with a high fat diet compared to mice fed with a control diet**



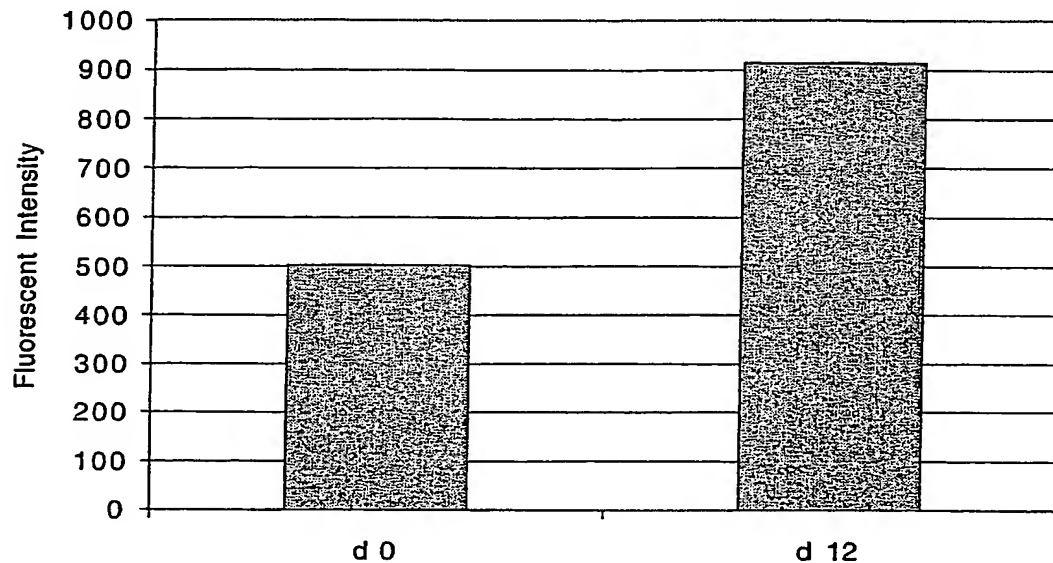
**Figure 3D. Real-time PCR analysis of *Pik4cb* expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**



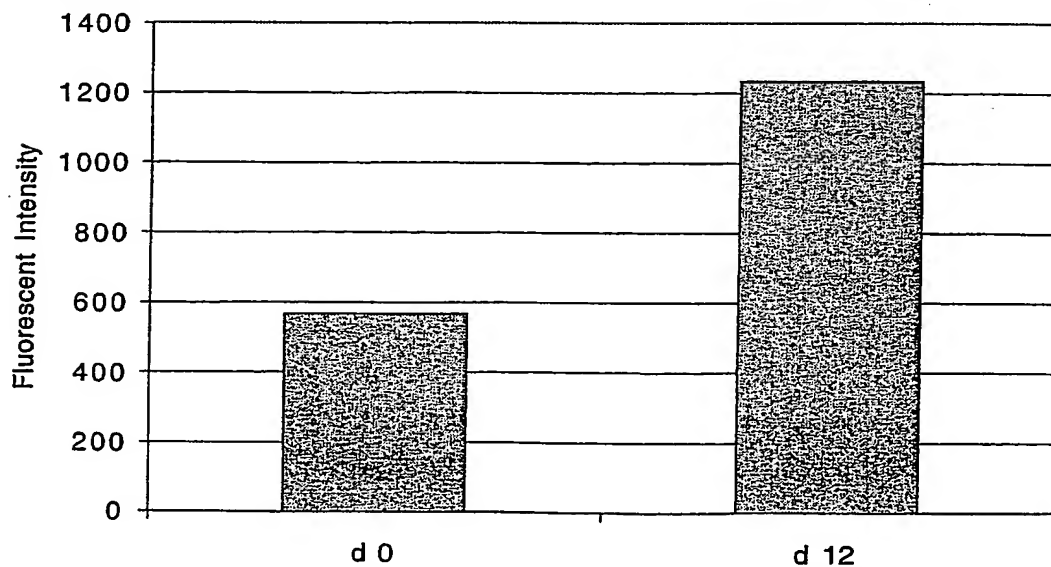
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**Figure 4. Expression of the human *fwd* homolog in mammalian (human) tissue.**

**Figure 4A. Microarray analysis of phosphatidylinositol 4-kinase, catalytic, beta polypeptide (PIK4CB) expression in human abdominal derived primary adipocyte cells during the differentiation from preadipocytes to mature adipocytes**

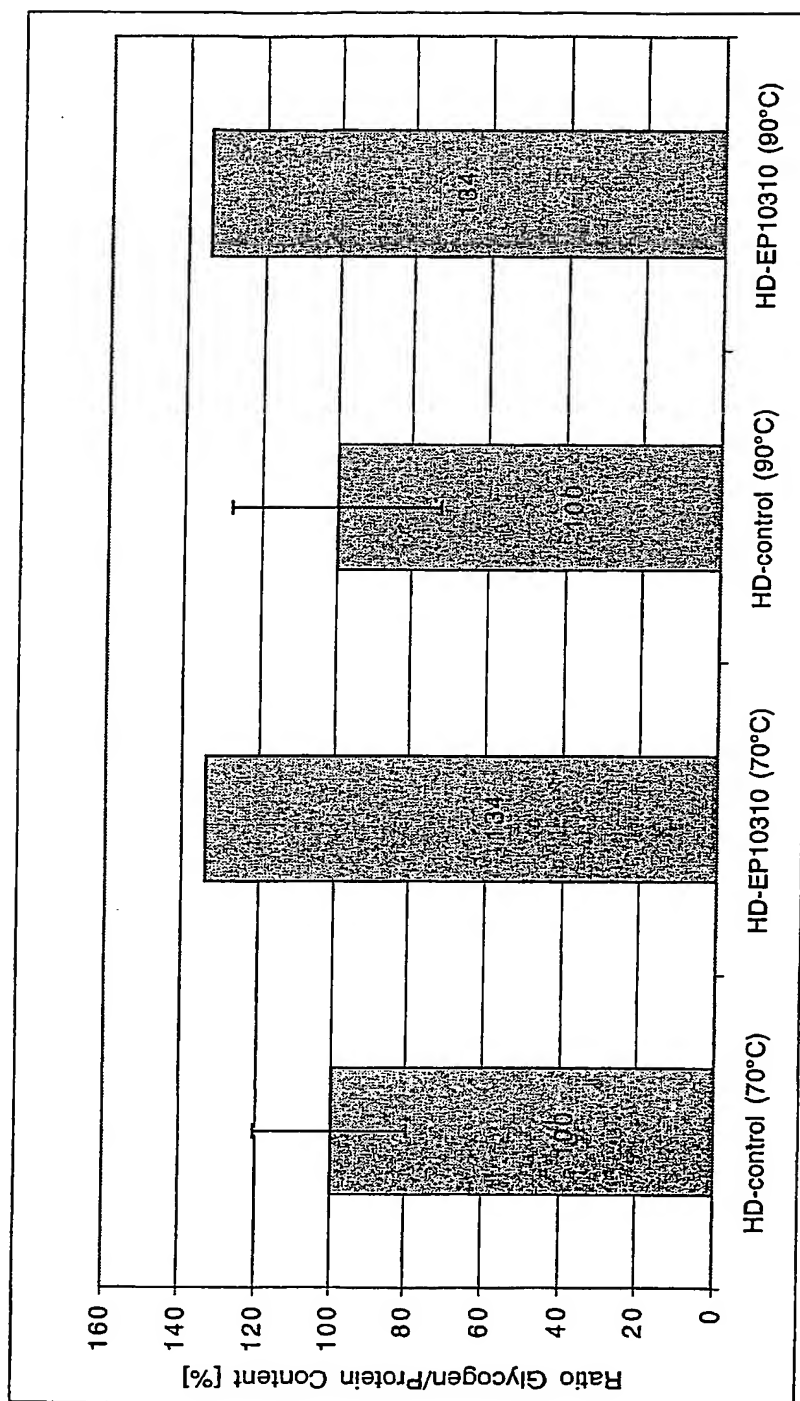


**Figure 4B. Microarray analysis of PIK4CB expression in a human adipocyte cell line during the differentiation from preadipocytes to mature adipocytes**



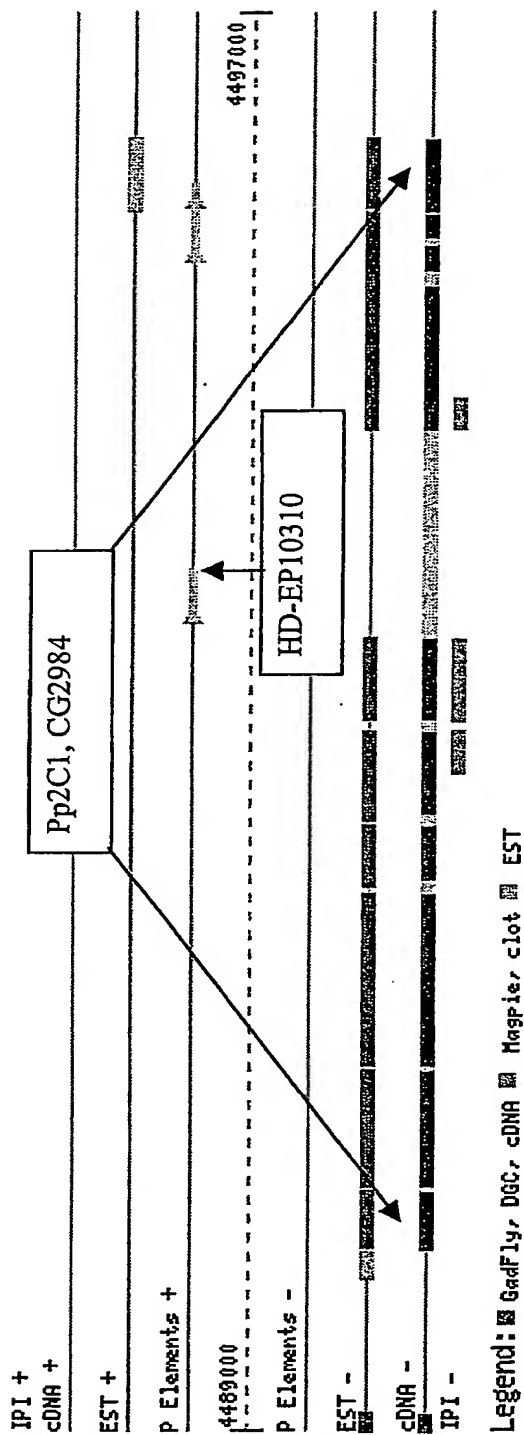
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Figure 5. Glycogen content of a *Drosophila* protein phosphatase 2C (*Pp2C1*; GadFly Accession Number CG2984) mutant



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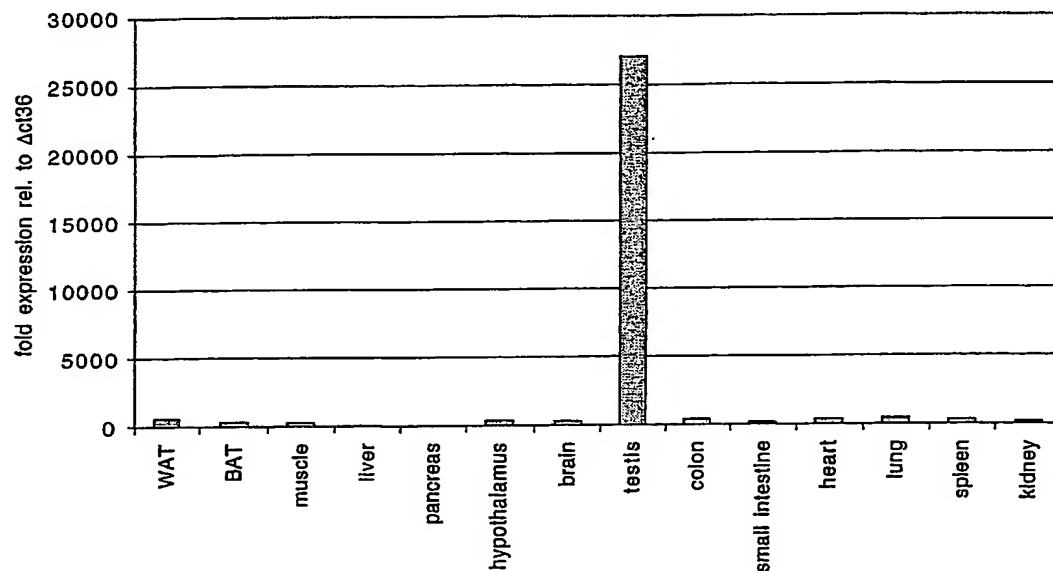
Figure 6. Molecular organization of the *Pp2C1* gene (GadFly Accession Number CG2984)



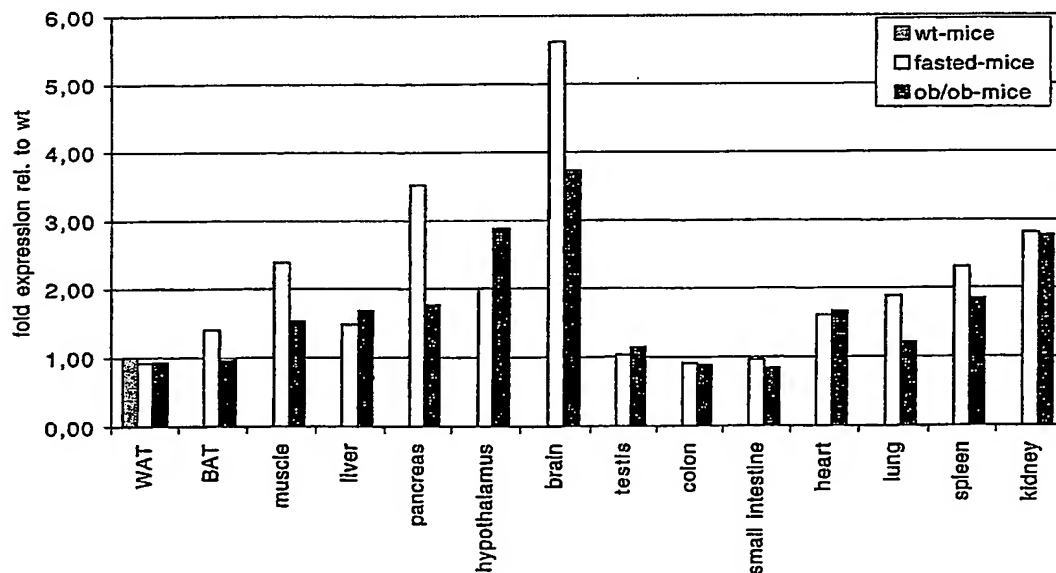
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**Figure 7. Expression of the *Pp2C1* (GadFly Accession Number CG2984) Homolog in Mammalian Tissues**

**Figure 7A. Real-time PCR analysis of protein phosphatase 1D magnesium-dependent, delta isoform (*Ppm1d*) in wild type mouse tissues**



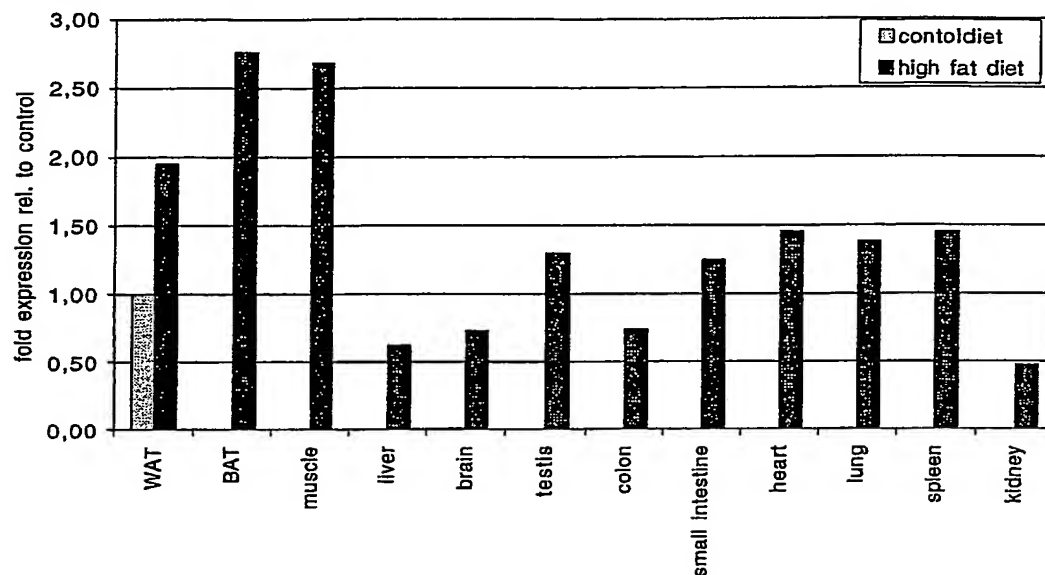
**Figure 7B. Real-time PCR analysis of *Ppm1d* expression in different mouse models**



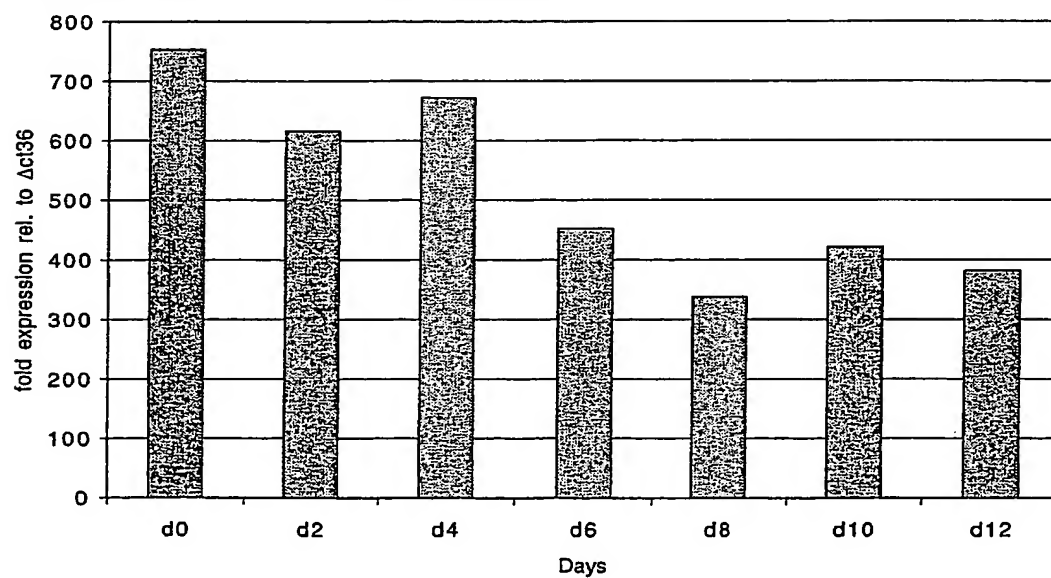


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**Figure 7C. Real-time PCR analysis of Ppm1d expression in mice fed with a high fat diet compared to mice fed with a control diet**

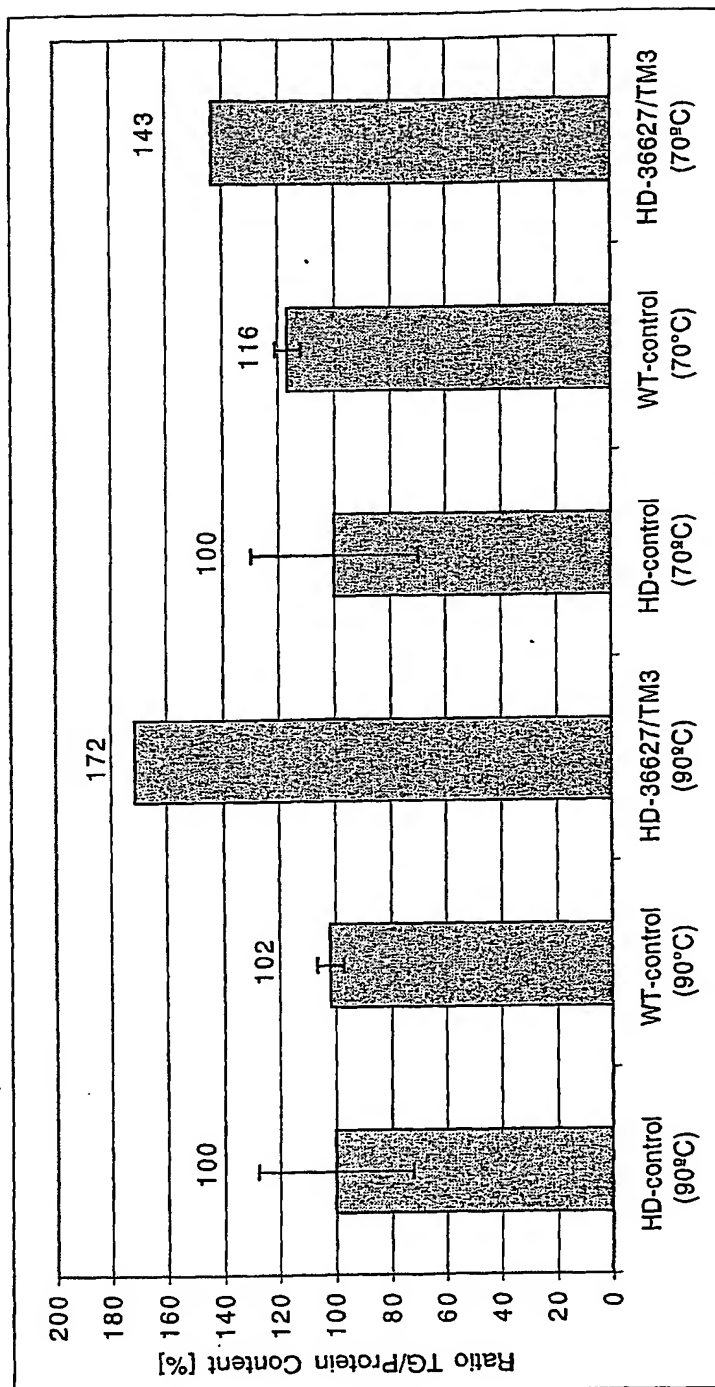


**Figure 7D. Real-time PCR analysis of Ppm1d expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**



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Figure 8. Energy storage triglyceride content of a *Drosophila Adk3* mutant (Gadfly Acc. No. CG6612)

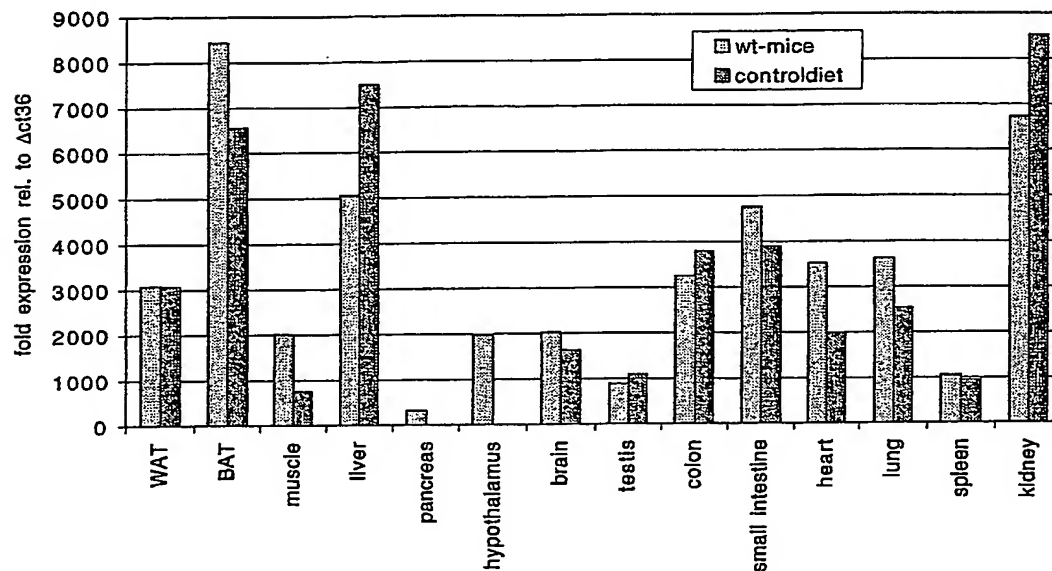




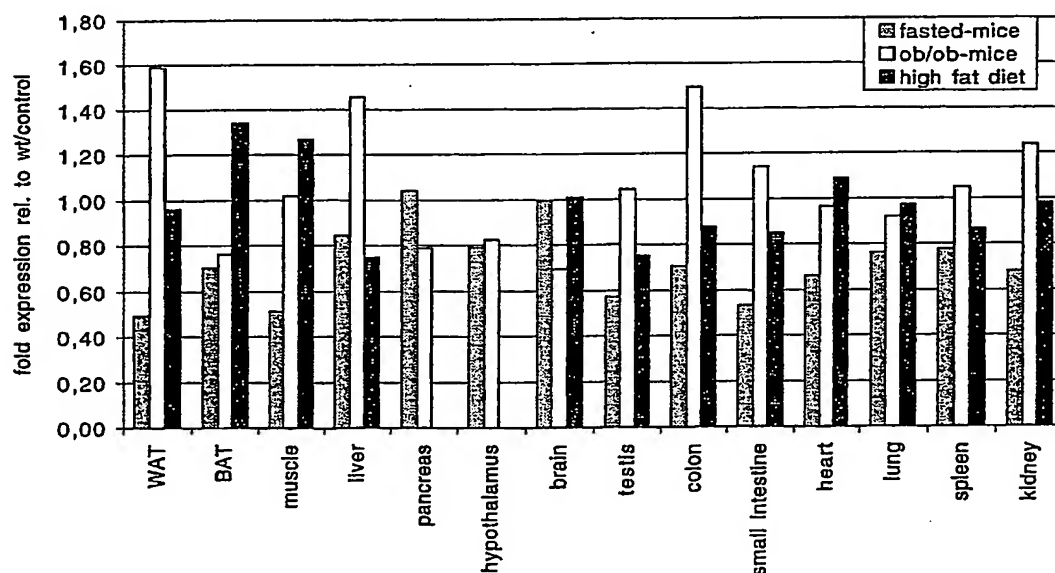
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**Figure 10. Expression of *Adk3* (GadFly Accession Number CG6612) Homologs in Mammalian Tissues**

**Figure 10A. Real-time PCR analysis of adenylate kinase 3 alpha like (*Akl3l*) in wild type and control-diet mouse tissues**

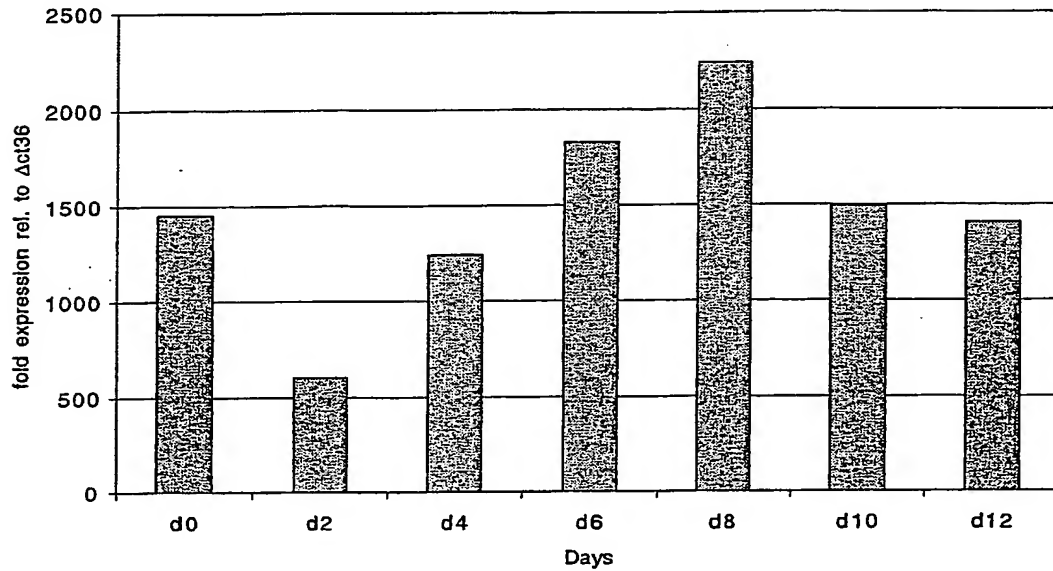


**Figure 10B. Real-time PCR analysis of *Akl3l* expression in different mouse models and in mice fed with a high fat diet compared to mice fed with a control diet**

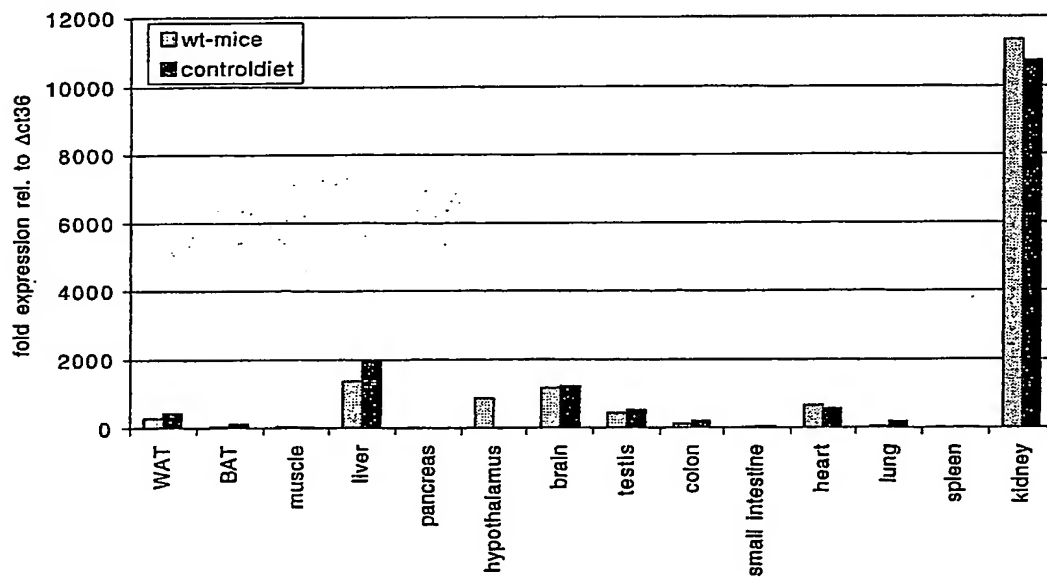


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**Figure 10C. Real-time PCR analysis of Ak13l expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**

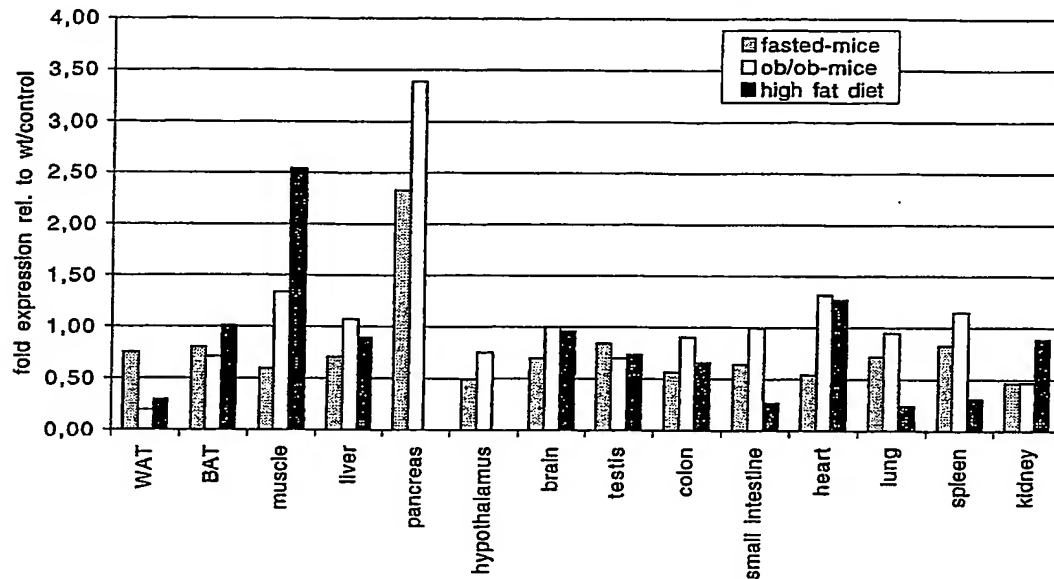


**Figure 10D. Real-time PCR analysis of adenylate kinase 4 (Ak4) in wild type and control-diet mouse tissues**

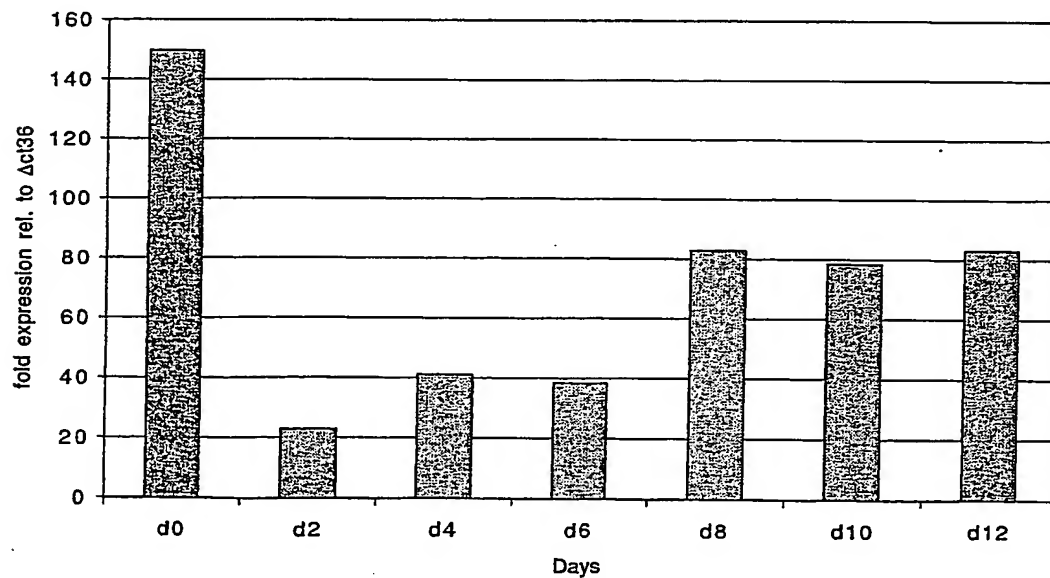


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**Figure 10E. Real-time PCR analysis of Ak4 expression in different mouse models and in mice fed with a high fat diet compared to mice fed with a control diet**



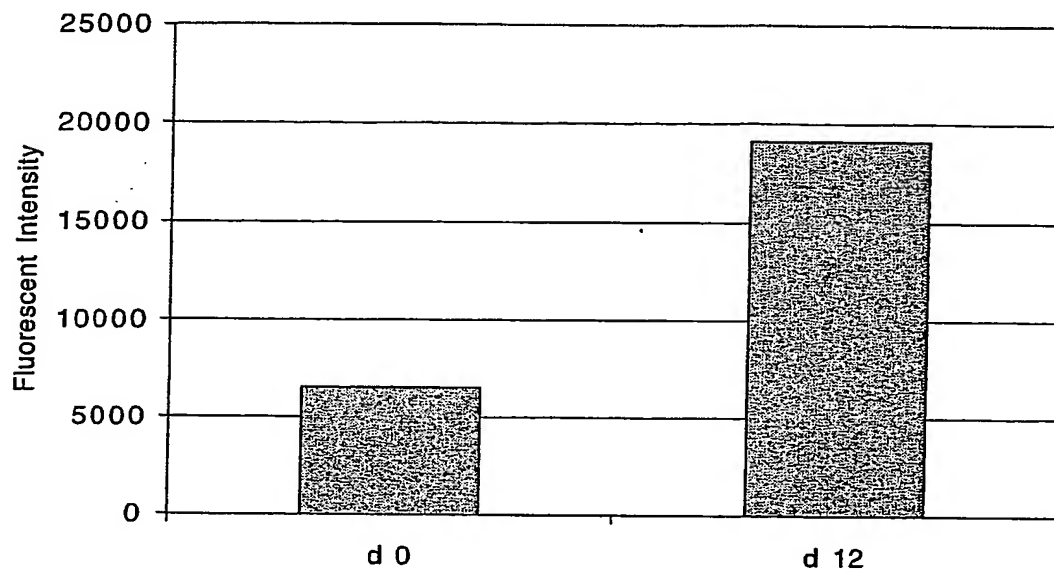
**Figure 10F. Real-time PCR analysis of Ak4 expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**



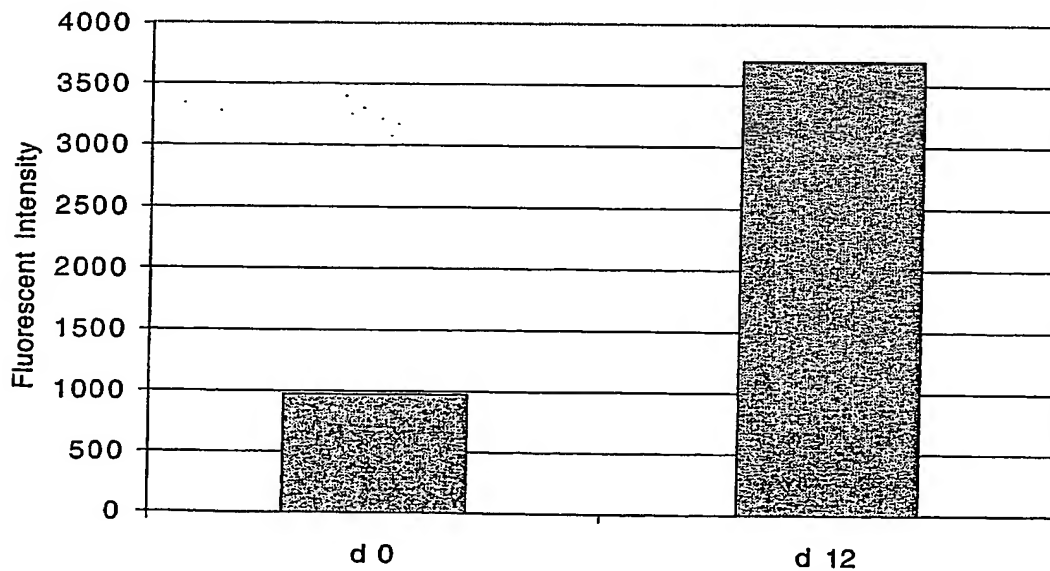
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**Figure 11. Expression of human *Adk3* homologs in mammalian (human) tissue.**

**Figure 11A. Microarray analysis of adenylate kinase 3 like 1 (AK3L1) expression in human abdominal derived primary adipocyte cells during the differentiation from preadipocytes to mature adipocytes**

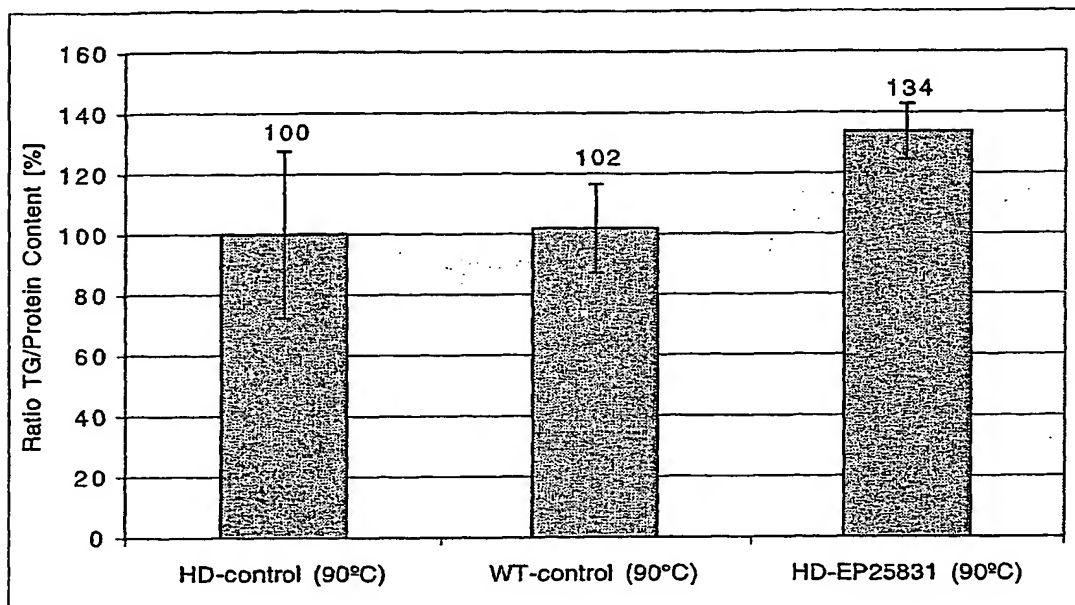


**Figure 11B. Microarray analysis of adenylate kinase 3 (AK3) expression a human adipocyte cell line during the differentiation from preadipocytes to mature adipocytes**



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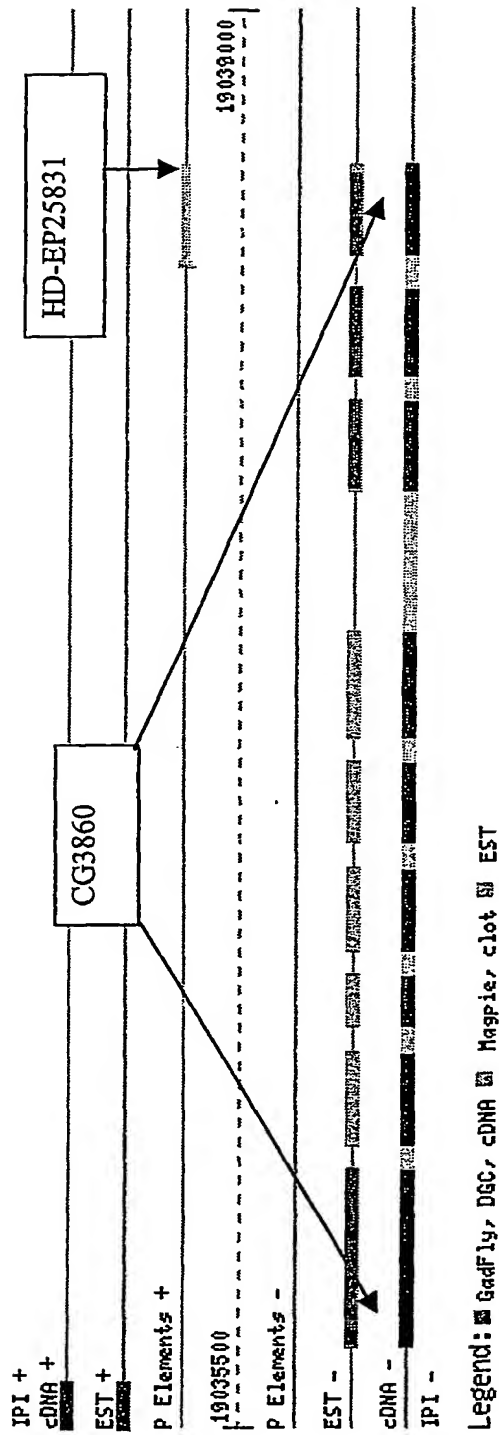
**Figure 12. Energy storage triglyceride content of a *Drosophila* CG3860 (Gadfly Accession Number) mutant**





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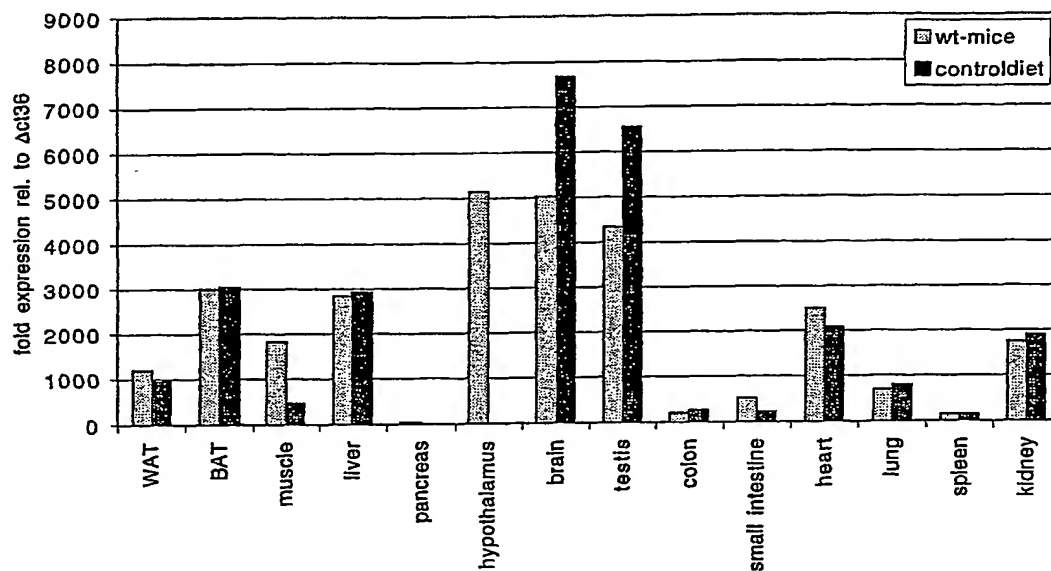
Figure 13. Molecular organization of the CG3860 gene (GadFly Accession Number)



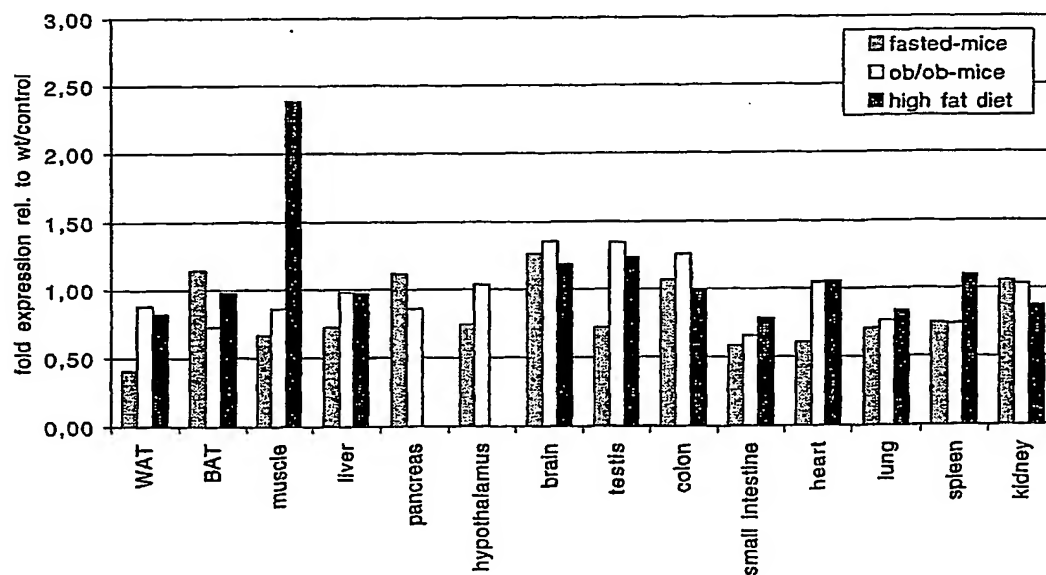
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**Figure 14. Expression of the CG3860 (GadFly Accession Number) Homologs in Mammalian Tissues**

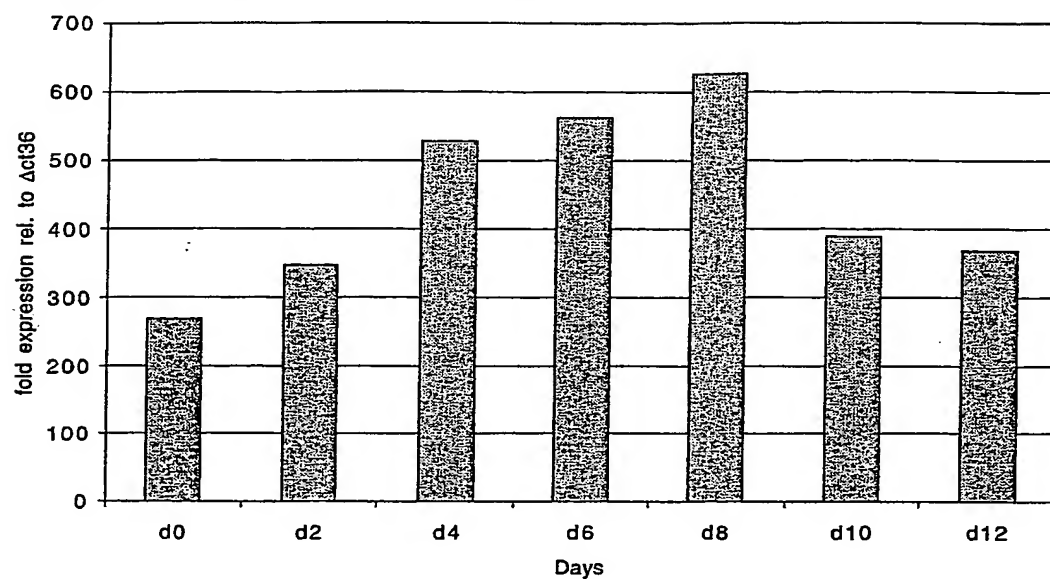
**Figure 14A. Real-time PCR analysis of oxysterol binding protein-like 1A (Osbp11a) expression in wild type and control-diet mouse tissues**



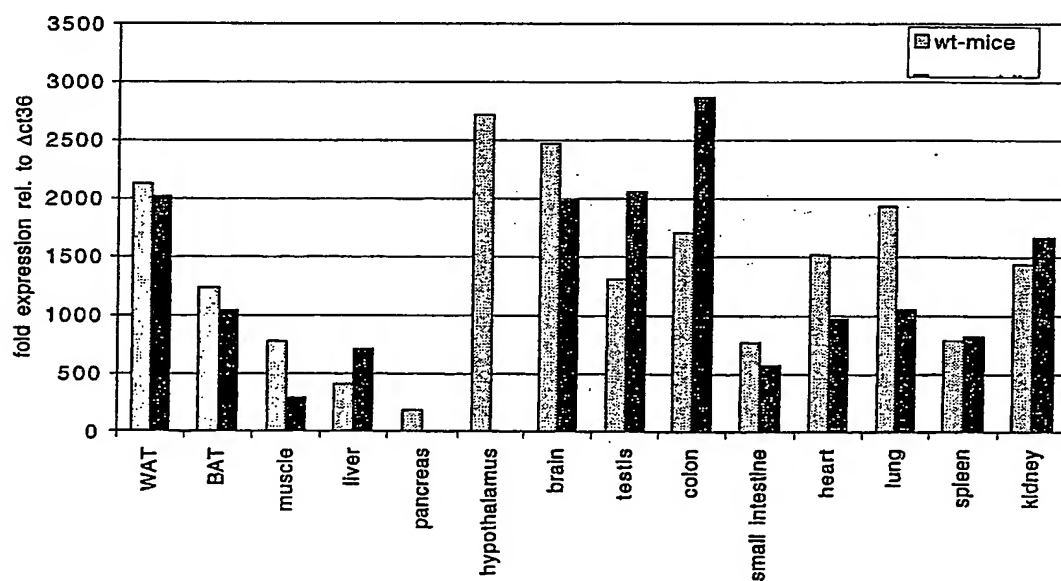
**Figure 14B. Real-time PCR analysis of Osbp11a expression in different mouse models and in mice fed with a high fat diet compared to mice fed with a control diet**



**Figure 14C. Real-time PCR analysis of Osbpl1a expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**

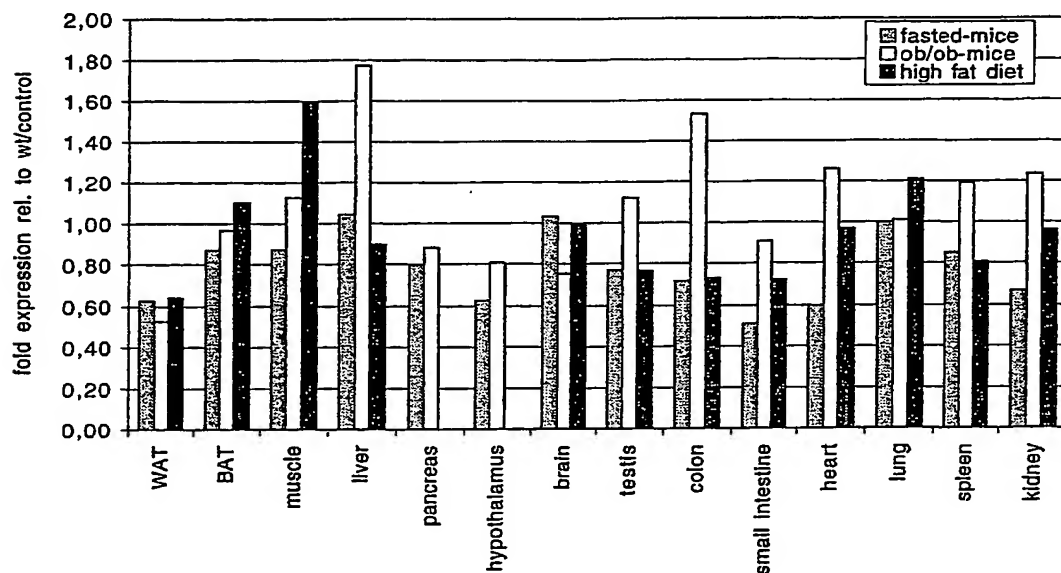


**Figure 14D. Real-time PCR analysis of oxysterol binding protein-like 2 (Osbpl2) expression in wild type and control-diet mouse tissues**

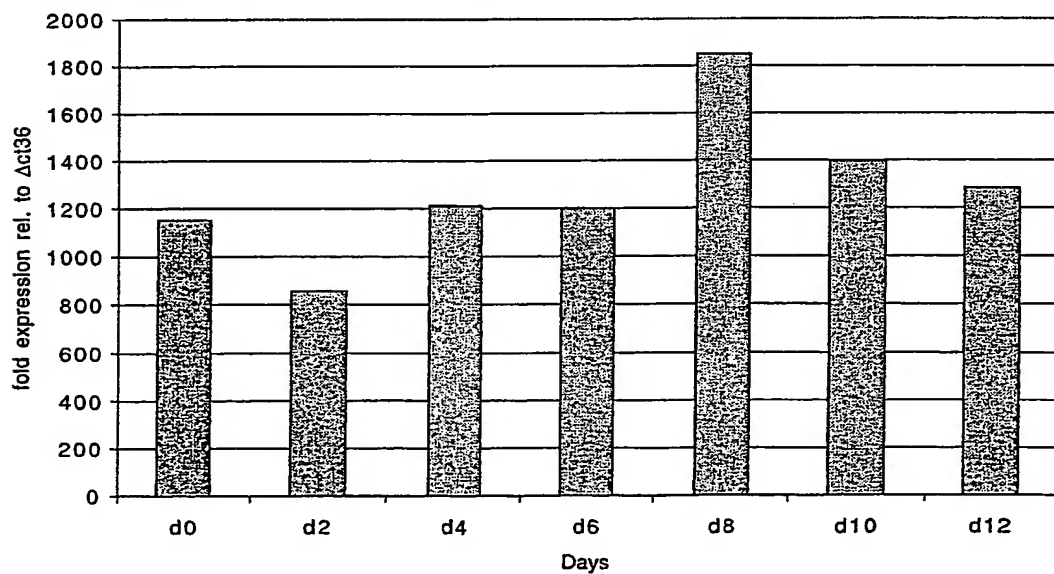


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**Figure 14E. Real-time PCR analysis of *Osbp12* expression in different mouse models and in mice fed with a high fat diet compared to mice fed with a control diet**



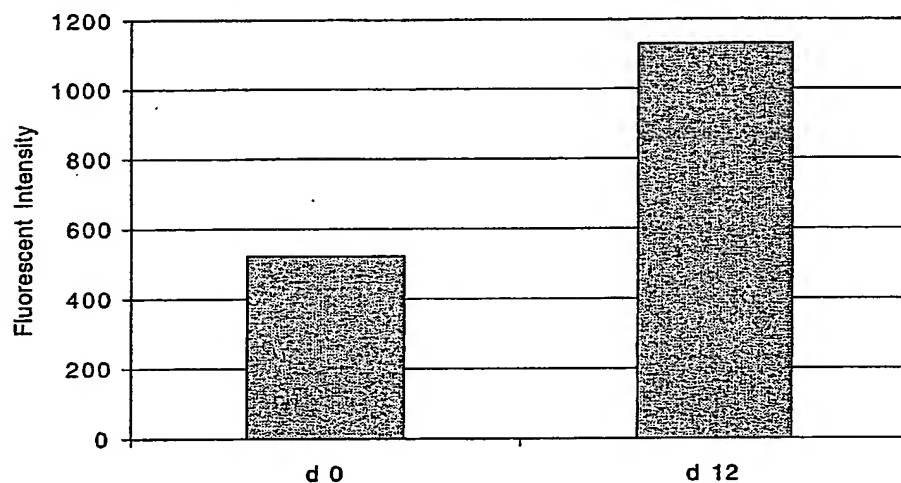
**Figure 14F. Real-time PCR analysis of *Osbp12* expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**



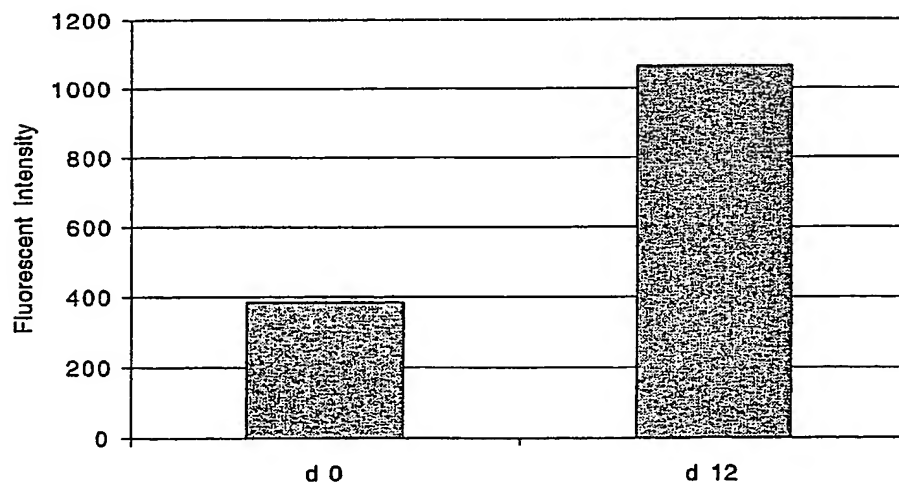
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**Figure 15. Expression of human CG3860 (GadFly Accession Number) homologs in mammalian (human) tissue.**

**Figure 15A. Microarray analysis of oxysterol binding protein-like 1A (OSBPL1A) expression in human abdominal derived primary adipocyte cells during the differentiation from preadipocytes to mature adipocytes**

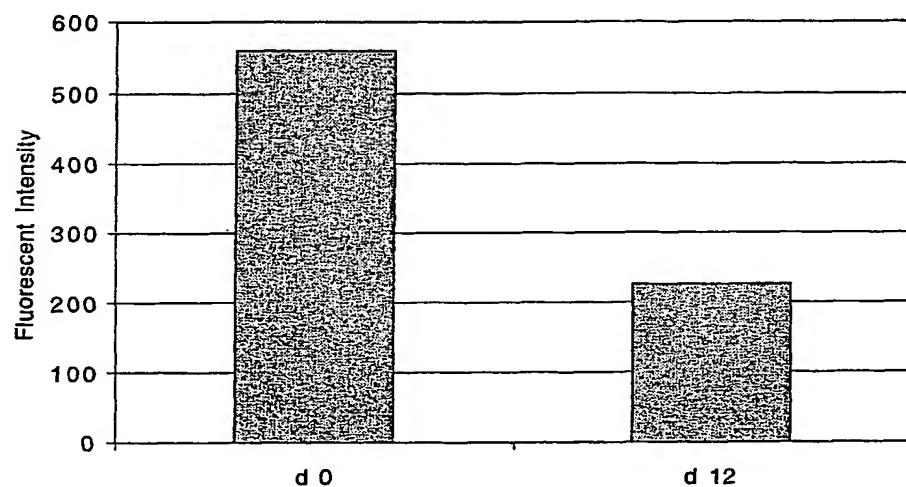


**Figure 15B. Microarray analysis of oxysterol binding protein-like 1A (OSBPL1A) expression in a human adipocyte cell line during the differentiation from preadipocytes to mature adipocytes**

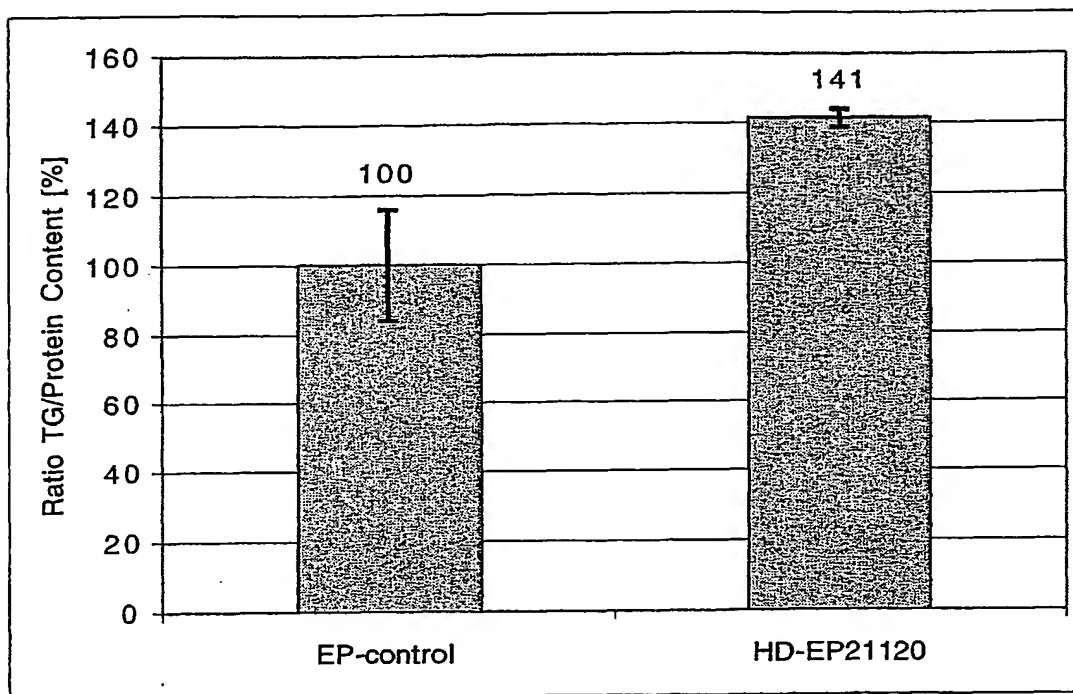


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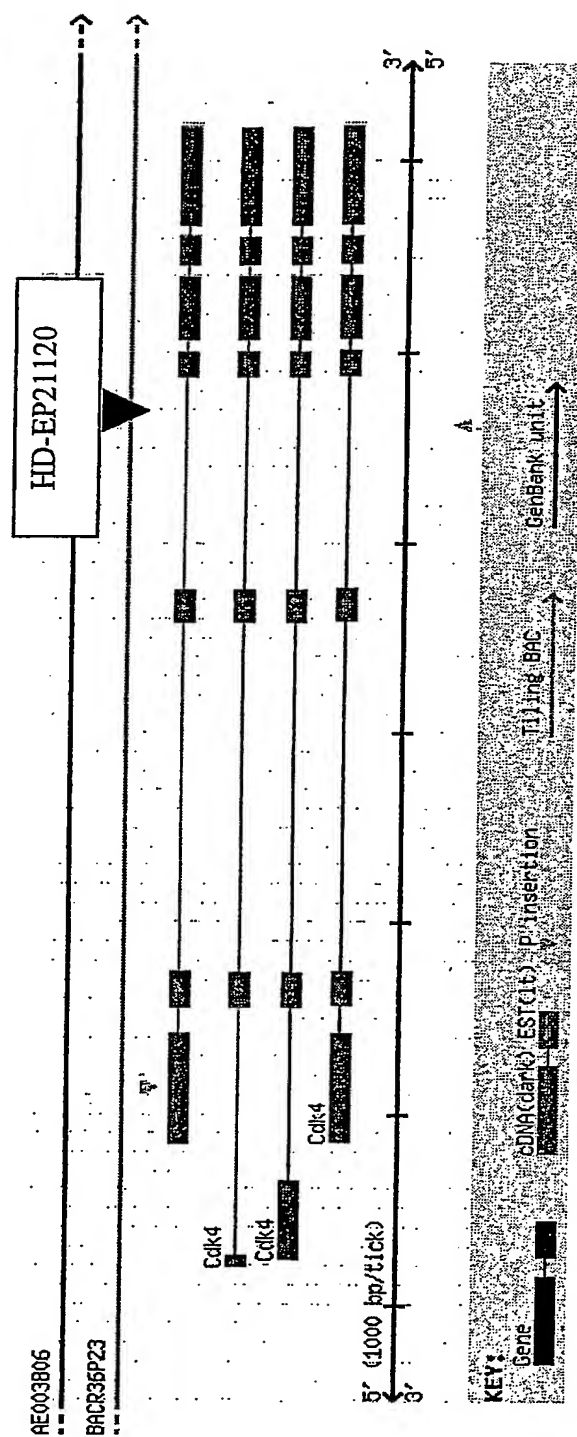
**Figure 15C. Microarray analysis of oxysterol binding protein-like 2 (OSBPL2) expression in a human adipocyte cell line during the differentiation from preadipocytes to mature adipocytes**



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**Figure 16. Energy storage metabolite content of a *Drosophila Cdk4* mutant**

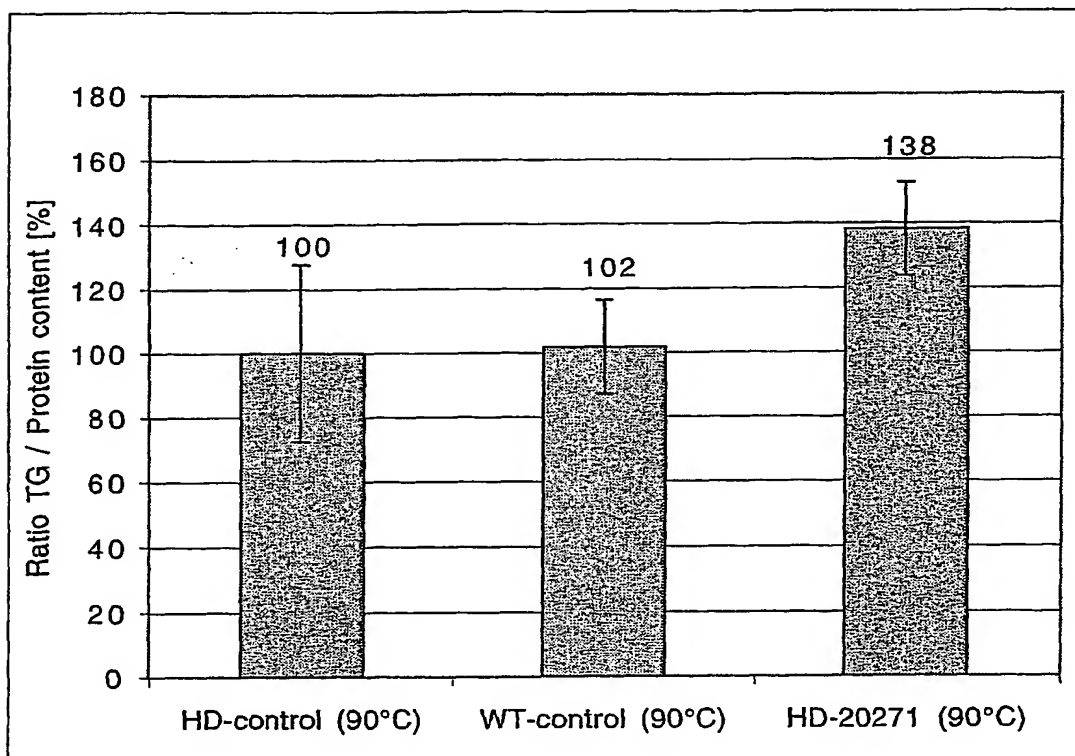
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Figure 17. Molecular organization of the *Cdk4* gene (GadFly Accession Number CG5072)



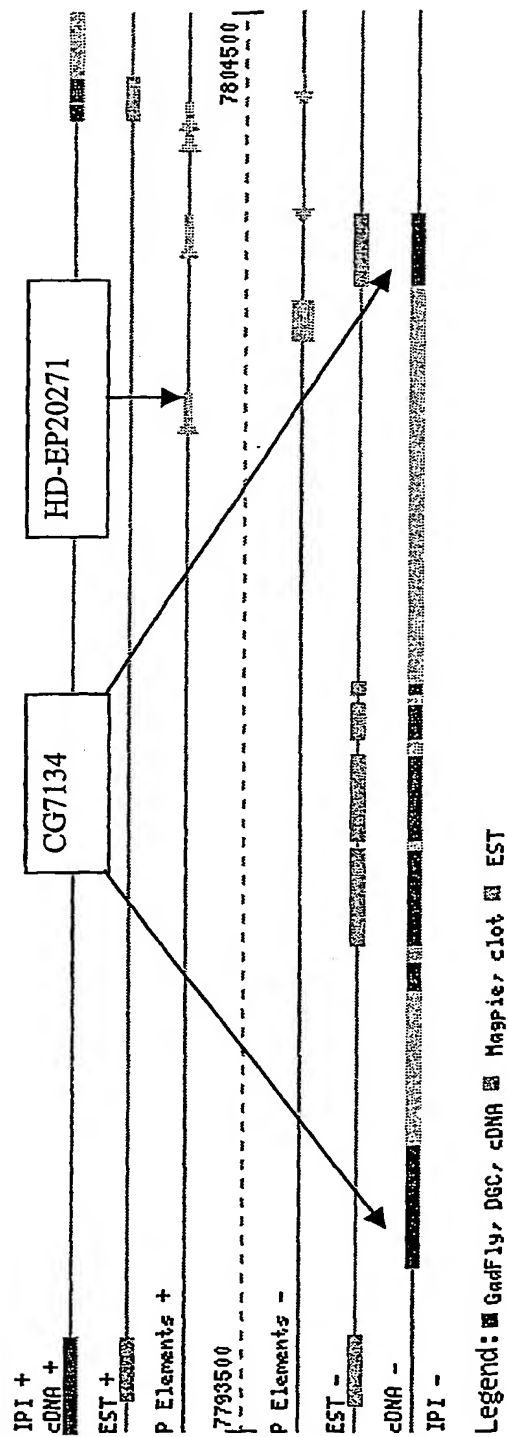
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**Figure 18. Energy storage metabolite content of a *Drosophila* CG7134 (Gadfly Accession Number) mutant**



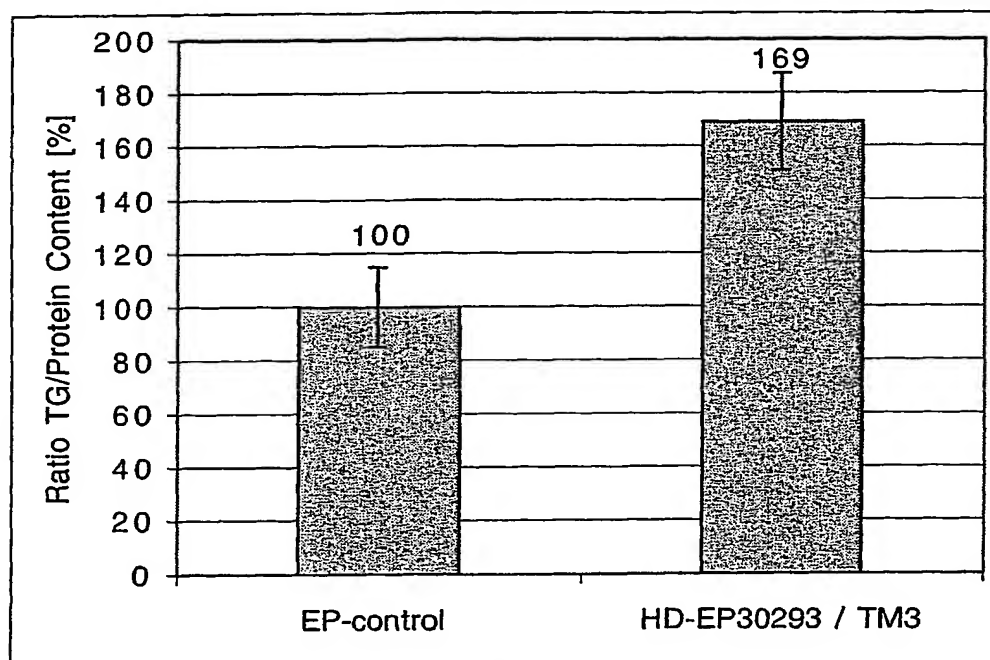
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Figure 19. Molecular organization of the CG7134 gene (GadFly Accession Number)



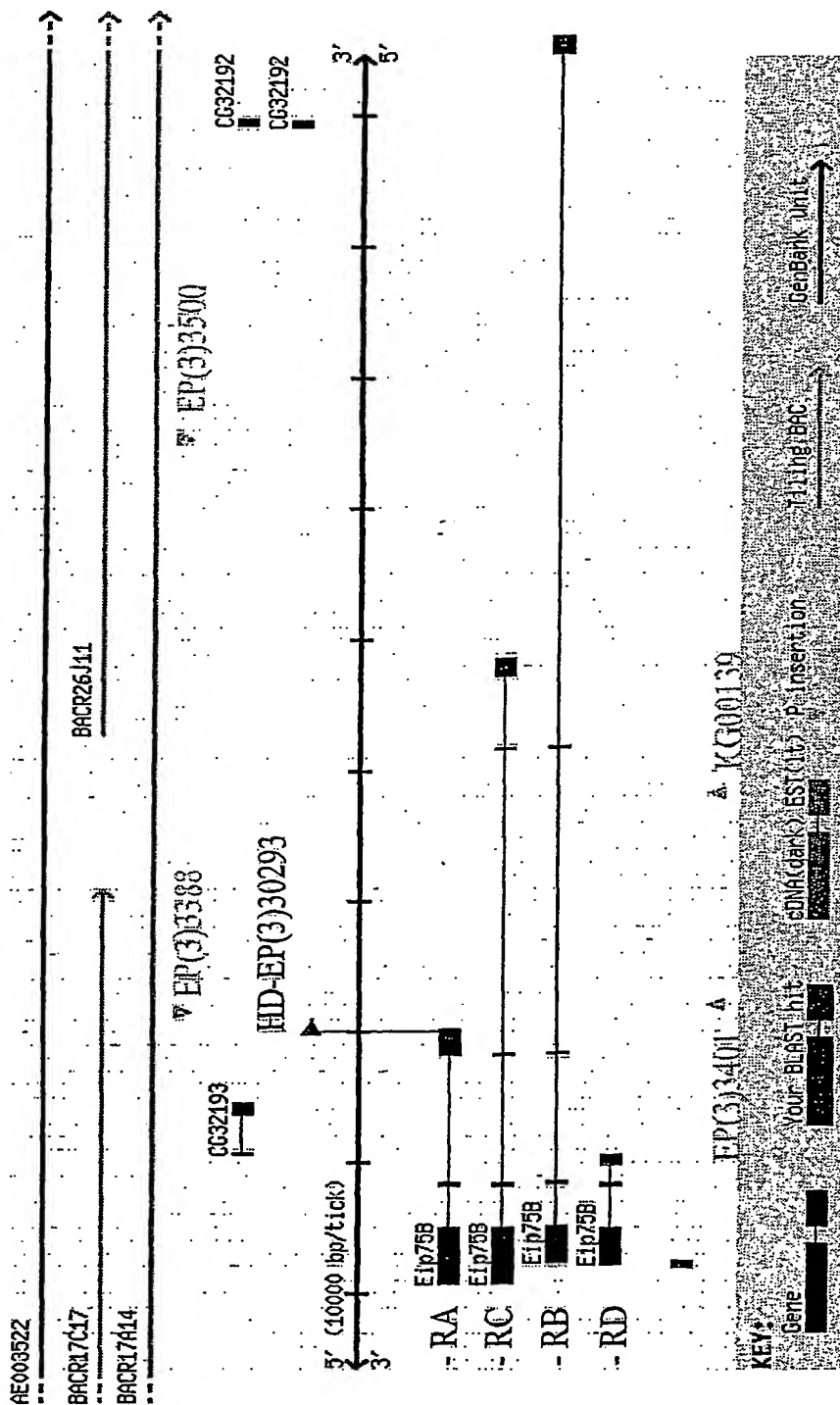
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Figure 20. Energy storage metabolite content of a *Drosophila Eip75B* mutant

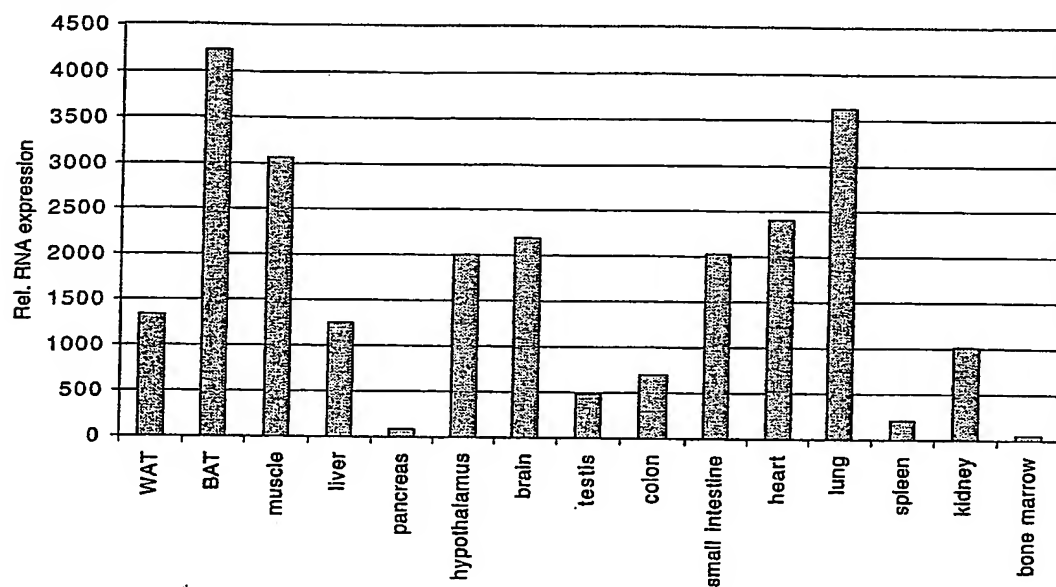
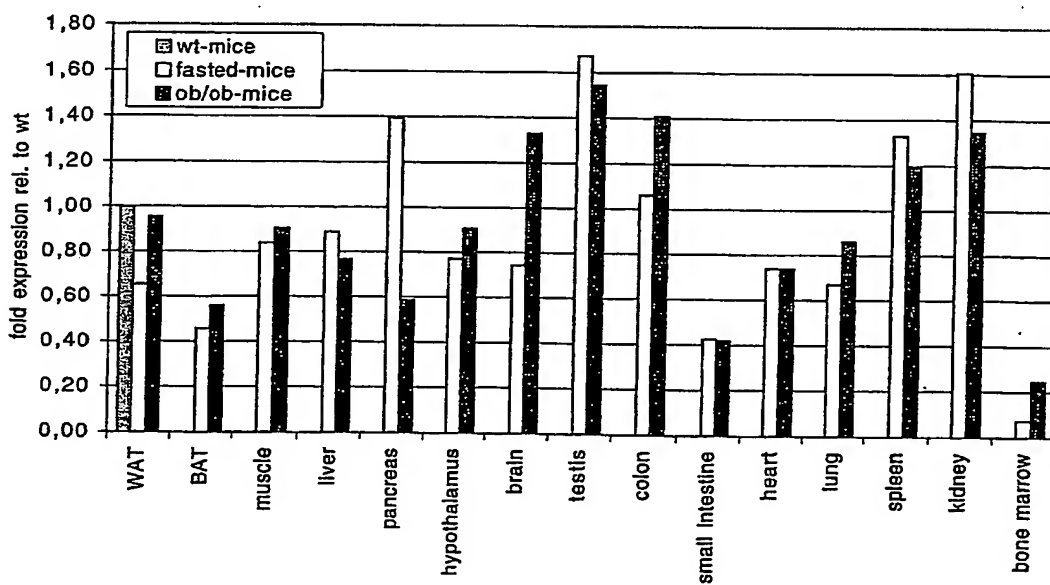


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Figure 21. Molecular organization of the *Eip75B* gene (GadFly Accession Number CG8127)

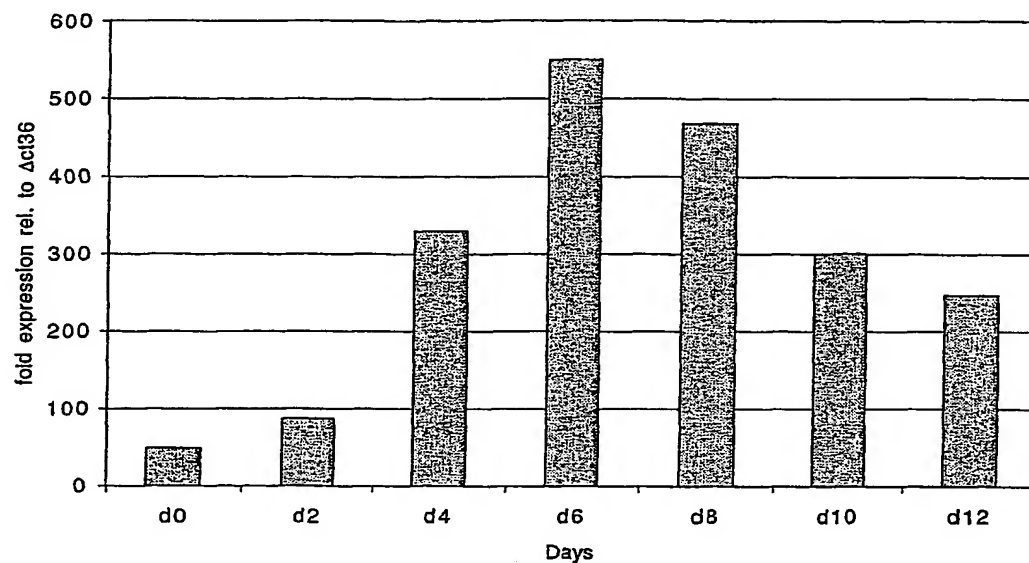


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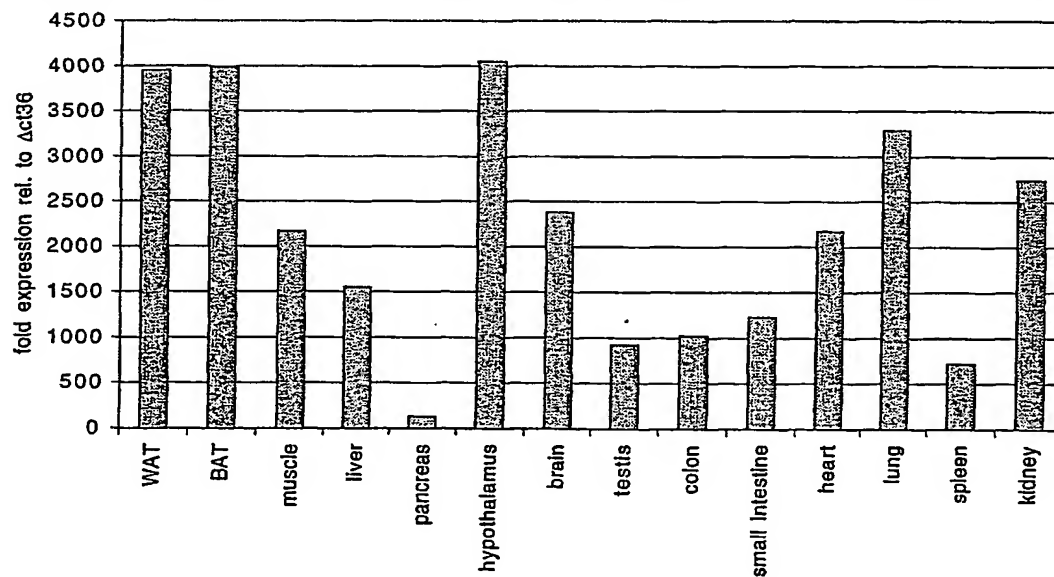
**Figure 22. Expression of tyrosine-protein kinases Nr1d1 and Nr1d2 in mammalian tissues****Figure 22A. Real-time PCR analysis of Nr1d1 expression in wildtype mouse tissues ( $\Delta C_t$  (pancreas) = 36)****Figure 22B. Real-time PCR analysis of Nr1d1 expression in different mouse models**

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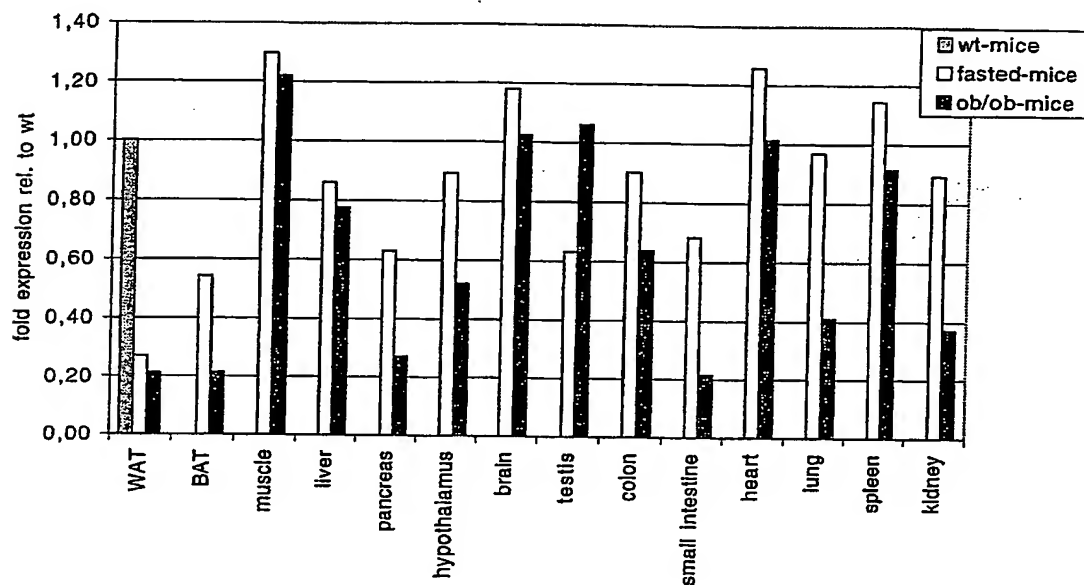
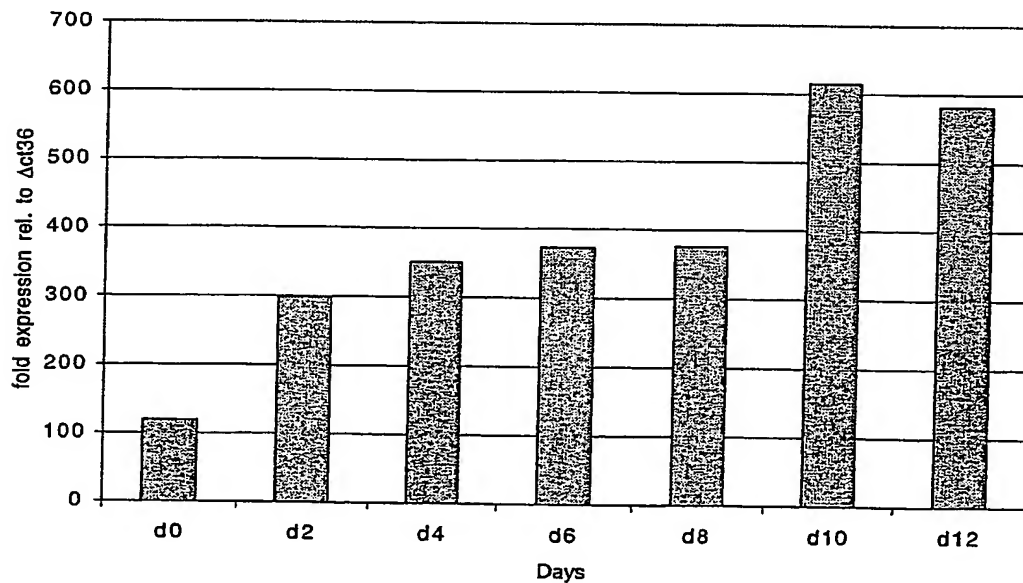
**Figure 22C. Real-time PCR mediated analysis of Nr1d1 expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**



**Figure 22D. Real-time PCR analysis of Nr1d2 expression in wildtype mouse tissues**



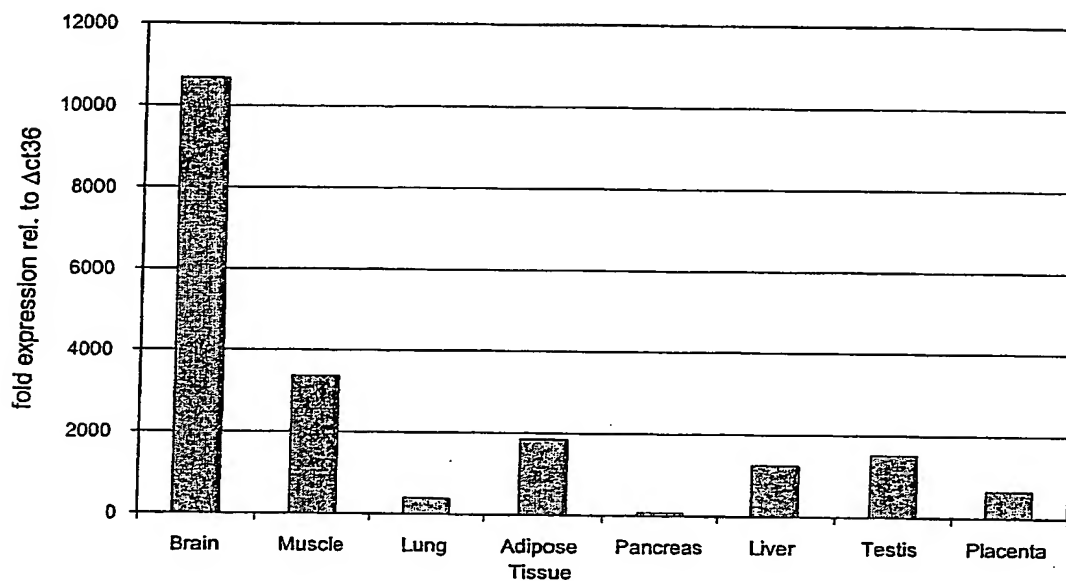
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**Figure 22E. Real-time PCR analysis of Nr1d2 expression in different mouse models****Figure 22F. Real-time PCR mediated analysis of Nr1d2 expression in 3T3-L1 cells differentiated from preadipocytes to mature adipocytes**

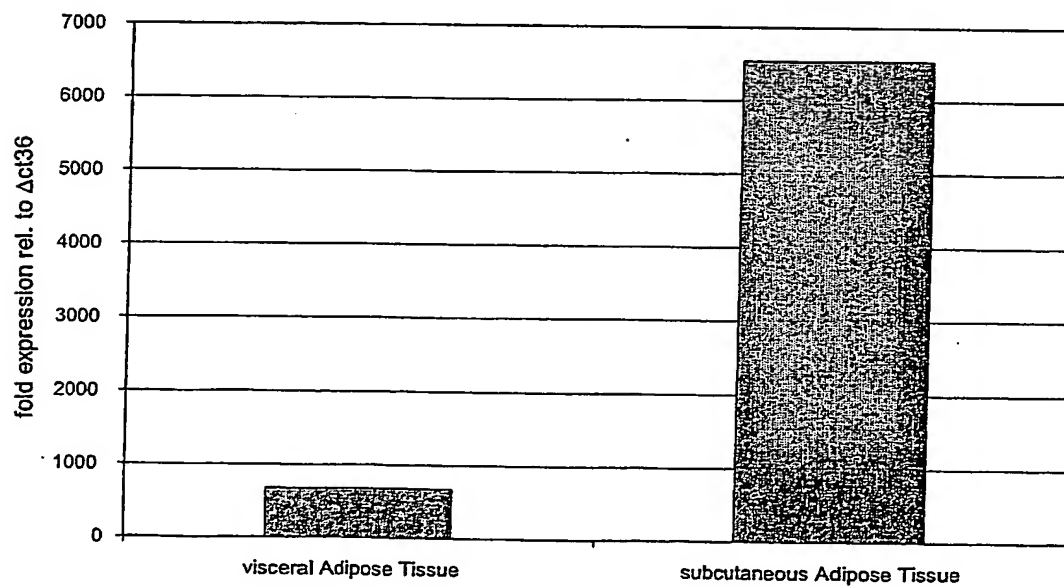
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**Figure 23. Real-time PCR analysis of the expression of *Eip75B* homologs in different human tissues**

**Figure 23A. Real-time PCR analysis of NR1D1 expression in different human tissues**



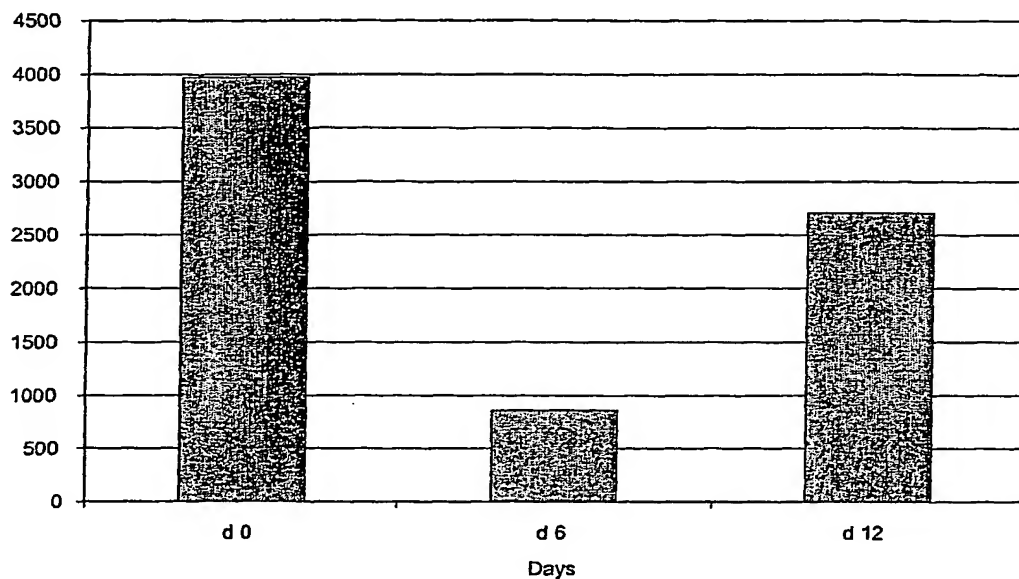
**Figure 23B. Real-time PCR analysis of NR1D1 expression in different human adipose tissues**



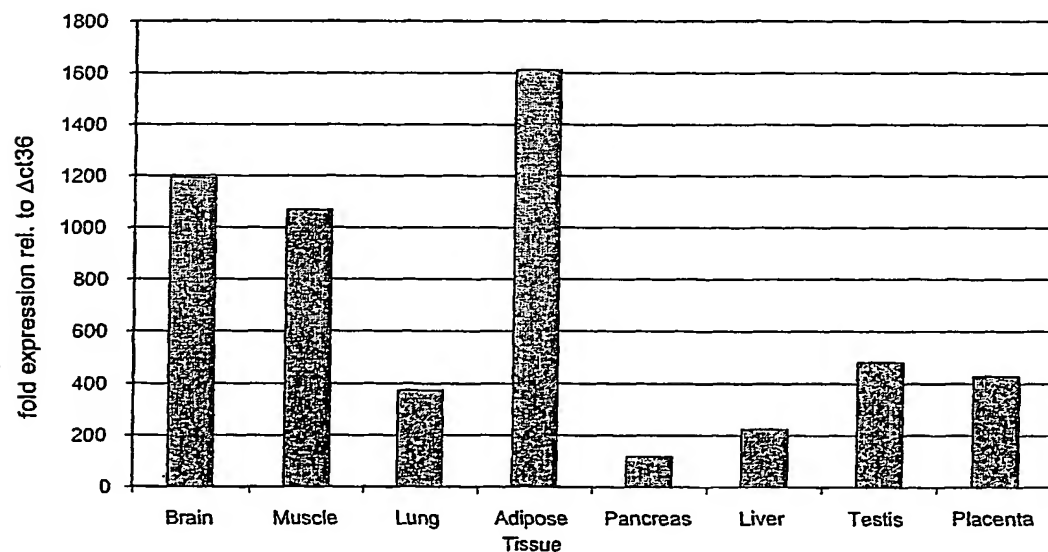


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**Figure 23C. Real-time PCR analysis of NR1D1 expression in human abdominal derived primary adipocytes during preadipocyte differentiation**

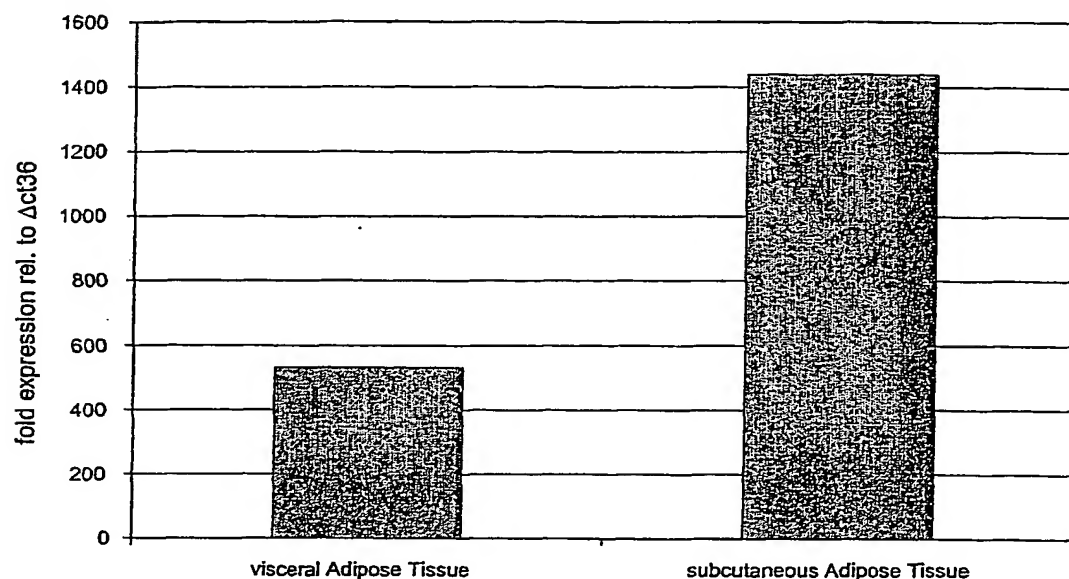


**Figure 23D. Real-time PCR analysis of NR1D2 expression in different human tissues**

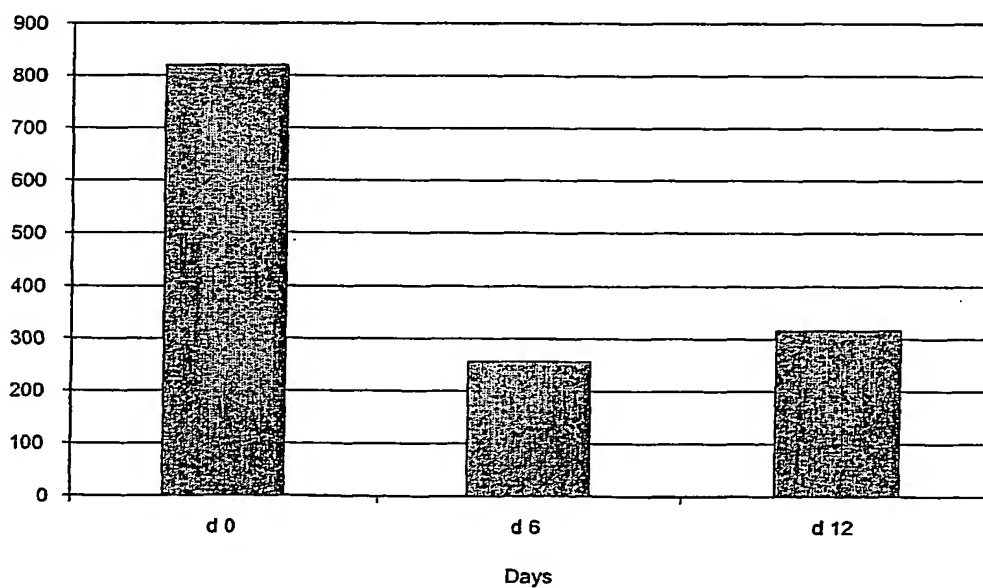


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**Figure 23E. Real-time PCR analysis of NR1D2 expression in different human adipose tissues**



**Figure 23F. Real-time PCR analysis of NR1D2 expression in human abdominal derived primary adipocytes during preadipocyte differentiation**



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